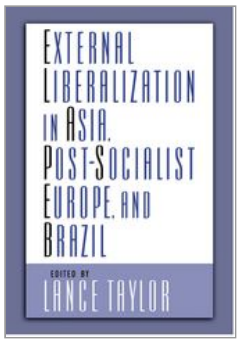

External Liberalization in Asia, Post-Socialist Europe, and Brazil
Lance Taylor

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Turkey, 1980–2000: Financial Liberalization, Macroeconomic (In)Stability, and Patterns of Distribution

Korkut Boratav
Erinc Yeldan

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Abstract and Keywords

This chapter examines the facts and processes characterizing the dynamic macroeconomic adjustments in Turkey since the start of its reforms toward global integration. The study is organized as follows. Section 2 focuses on the analytics of macro adjustments of the two distinct (i.e., 1980-1988/1989 and 1989-2000) phases of liberalization. Section 3 quantifies the macro adjustments via a set of decomposition exercises and traces the evolution of real output and sources of aggregate demand. Microlevel adjustments and related decomposition exercises, in turn, are investigated in Section 4 for the manufacturing sector. The distributional effects of liberalization of commodity trade and finance are summarized in Section 5, and Section 6 gives a conclusion.

Keywords: macroeconomic adjustments, economic reform, global integration, decomposition, real output, aggregate demand, distribution, commodity trade, finance

1. Introduction

The integration of developing national economies into the evolving world financial system has been achieved by a series of policies aimed at liberalizing their financial sectors. The motive behind financial liberalization was to restore growth and stability by raising saving and improving economic efficiency. A major consequence, however, has been the exposure of these economies to speculative short-term capital movements (hot money) that increased financial instability and resulted in a series of financial crises in these countries. Furthermore, contrary to expectations, the post-liberalization period was marked by the divergence of domestic savings away from fixed capital investments toward speculative financial instruments. These instruments often had erratic and volatile yields. As a result, national economies with weak financial structures and shallow markets suffered from an increased volatility of output growth, shortsightedness of entrepreneurial decisions, and financial crises with severe economic and social consequences.

It is the purpose of this chapter to identify and study the main stylized facts and processes characterizing the dynamic macroeconomic adjustments in Turkey since the inception of its reforms toward global integration. Under the neoliberal regime, Turkey in the post 1980s has undergone persistent difficulties, wide fluctuations in national income, and conflicting policy adjustments.[1] At the turn of the century, the most striking aspects of the current Turkish political economy are the persistence of price inflation in a crisis-prone economic structure, stubborn and rapidly expanding fiscal deficits; a marginalized labor force, the dramatic deterioration in the economic conditions of the poor, and the severe erosion of moral values along with increased public corruption.[2]

We plan this study as follows: the analytics of macro adjustments of the two distinct (i.e., 1980–1988/1989 and 1989–2000) phases of liberalization is the theme of section 2. We address the modes of **(p.418)** accumulation and the resolution of macro equilibria under both periods separately, and highlight the ascendancy of finance over industrial development. We also investigate the nature and evolution of the flows of short-term foreign capital. In particular, we document the detrimental consequences of hot money flows in inducing instability at the onset of the 2000–2001 financial crisis. Section 3 quantifies the macro adjustments via a set of

decomposition exercises and traces the evolution of real output and sources of aggregate demand. The deterioration of fiscal balances forms the thematic background of this section. Microlevel adjustments and related decomposition exercises, in turn, are investigated in section 4 for the manufacturing sector. Here we address two separate, yet related, issues: (1) the effect of external liberalization on oligopolistic concentration and price-cost margins; and (2) the patterns of investment behavior under external liberalization. We summarize the distributional effects of liberalization of commodity trade and finance in section 5. Section 6 concludes.

2. Phases of Macroeconomic Adjustment in Turkey

The post-1980 adjustment path started with an orthodox stabilization policy that also incorporated the first structural steps toward a market-based mode of regulation. The shock treatment of 1980, facilitated by the military coup of September and generously supported by international donors, was, to a large degree, successful in terms of its own policy goals. The rate of inflation that had almost reached three digit figures in 1980 was reduced to an average of 33.2 percent in the following two years. The recession was a brief and relatively mild one (the GDP fell by 2.3 percent in 1980). The liberalization of domestic markets eliminated the painful shortages in basic commodities, and the major realignment in relative prices took place relatively smoothly. However, the whole operation was, to a large extent, dependent on the drastic regression of labor incomes. This was realized through the suppressive control of the relations of distribution by the military regime. The first phase of reforms was followed by a gradual move to trade liberalization in 1984 (which culminated in a Customs Union with the EU eleven years later) and the liberalization of the capital account in 1989.

Particularly during the early phases of its inception, the Turkish adjustment program was hailed as a “model” by the orthodox international community, and was supported by generous structural adjustment loans, debt relief, and technical aid. Currently, the Turkish economy can be said to be operating under conditions of a truly “open economy”—a macroeconomic environment where both the current and capital accounts are completely liberalized. In this setting, many of the instruments of macro and fiscal control have been

transformed, and the constraints of macro equilibrium have undergone major structural changes.

We provide a general overview of the recent macroeconomic history of Turkey in table 14.1. We identify the 1972–1979 period as the deepening of the industrialization strategy based on import substitution (ISI). This period, often called the second phase of import substitution, was part of the evolution of the inward-looking, domestic demand–led industrialization that dated back to the 1950s. The late 1970s witnessed a vigorous public investment program aimed at expanding domestic production capacity in heavy manufacturing, capital goods (such as machinery), petrochemicals, and basic intermediates. The foreign trade regime was heavily protected via quantitative restrictions along with a fixed exchange rate regime that, on average, was overvalued in purchasing parity terms. The state was both an investor and a producer, with state economic enterprises (SEEs) serving as the major tools for fostering industrialization targets.

During the import-substitution phase, the underlying political economy of the industrialization strategy was a grand, yet precarious, alliance between the bureaucratic elites, industrial capitalists, industrial workers, and peasantry (Boratav, Keyder, and Pamuk 1984). Accordingly, private industrial profits were fed from three sources. First, the protectionist trade regime (often implemented through strong non-tariff barriers) enabled industrialists to capture oligopolistic profits and rents from a readily available and protected domestic market. Second, the existence of a public enterprise system that produced cheap intermediates through artificially low administered prices enabled private industrial enterprises (and the rural economy) to minimize material input costs. Third, a repressed financial system (supported by undervalued foreign currencies) enabled cheap financing for fixed capital investments in manufacturing. Industrialists, in turn, “accepted” a general rise in manufacturing wages together with an agricultural support program **(p.419)**

Table 14.1 Phases of Macroeconomic Adjustment in Turkey, 1972–2001

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
I. Production and Accumulation (Real Rate of Growth, %)												
GDP	6.8	0.5	4.2	6.5	2.1	4.8	–5.5	7.2	3.1	–5.0	7.2	–9.3
Agriculture	1.8	0.5	0.6	0.8	7.8	0.1	–0.7	1.3	8.4	–4.6	4.1	–4.9
Manufacturing	9.7	–0.2	7.9	8.6	1.6	6.0	–7.6	10.2	1.2	–5.7	5.9	–8.5

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
Fixed Investment:												
Private Sector	11.5	–7.3	–1.0	14.1	29.2	11.9	–9.6	9.5	–8.2	–17.8	15.9	–35.1
Private Energy and Transport.	19.5	–10.6	27.3	7.5	4.2	16.2	–26.2	25.8	–14.3	–31.7	15.6	
Private Manufacturing	10.9	–13.6	4.8	7.7	9.7	14.3	–0.5	4.7	–6.3	–17.5	15.0	
Private Housing	9.0	2.2	–19.6	24.5	50.7	11.2	–24.6	2.9	–1.6	18.6	14.0	

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
Public Sector	15.4	–1.7	4.8	12.0	–2.3	5.2	–39.5	15.8	13.9	–8.7	19.6	–21.9
Public Energy and Transport.	16.3	0.3	9.5	16.8	–2.6	4.4	–44.6	13.6	14.6	–15.4	26.2	
Public Manufacturing	16.0	1.3	–11.2	–9.6	–11.3	–6.9	–41.4	7.8	19.1	–4.3	20.3	
Manufacturing Sector (Total)	12.0	–9.4	–0.8	3.7	6.6	12.4	–2.5	4.8	–5.6	–17.6	17.0	

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
As % Share of GNP:												
Savings	20.9	17.3	17.7	19.5	27.2	21.9	23.0	21.1	23.1	19.6	19.9	
Investment	21.3	22.3	18.3	20.9	26.1	23.7	24.4	24.8	24.3	22.3	24.1	
PSBR	5.7[a]	6.9	3.7	4.7	4.8	9.1	7.9	7.2	9.2	15.3	12.5	15.4
II. Distribution and Prices												
Inflation Rate (CPI)	18.4	59.5	35.1	40.7	68.8	65.1	106.3	85.0	90.7	70.5	39.1	68.0

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
Annual Rate of Change in Exchange Rate (TL/$)	3.9	48.0	45.0	39.7	66.0	50.4	170.0	72.0	71.7	58.2	28.6	114.2
Real Interest Rate on Government Bonds[b]	—	—	—	—	–5.8	10.5	20.5	23.6	29.5	36.8	4.5	31.8
Manufacturing	3.1	–1.1	–1.1	–3.9	–7.1	10.2	–36.3	–2.8	3.3[d]	4.6[d]	–8.8[d]	

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
Real Wages[c]												
Share of Wages in Manufac. Value Added (%)	27.7	35.6	24.5	20.6	15.4	21.8	16.1	16.7				
III. Internationalization												
Man. Exports Growth	39.4	14.3	19.7	12.5	14.0	5.1	18.0	14.2	3.2	–5.5	4.9	12.4

	Import-Substitutionist Industrialization	Economic Crisis	Post-Crisis Adjustment	Export-Led Growth	Exhaustion	Unregulated Financial Liberalization	Financial Crisis	Reinvigoration of Short-term Foreign Capital-Led Growth	Contagion of the World Financial Crisis		Exchange Rate Based Disinflation and Financial Meltdown	
	1972–76	1977–80	1981–82	1983–87	1988	1989–93	1994	1995–97	1998	1999	2000	2001
As % Share of GNP:												
Imports[e]	11.7	11.2	14.0	15.9	15.8	14.6	17.8	23.2	22.5	21.7	27.2	27.0
Exports[e]	5.3	4.2	8.5	10.8	12.8	9.1	13.8	15.8	13.2	14.2	13.7	20.8
Current Account Balance[e]	–1.4	–3.4	–2.7	–1.9	–1.7	–1.3	–2.0	–1.4	1.0	–0.7	–4.8	2.2
Stock of Foreign Debt	1.4	14.5	27.1	37.8	44.8	35.1	49.6	45.6	50.9	55.7	58.3	75.4

Sources: SPO Main Economic Indicators; Undersecretariat of Foreign Trade and Treasury Main Economic Indicators; SIS Manufacturing Industry Surveys.

a. 1975–76 only.

b. Annual average of Compounded Interest Rate on Government Debt Instruments deflated by the whole sale price index.

c. Wage earnings of workers engaged in production. Private manufacturing labor data cover enterprises employing 10+ workers.

d. Refer to unit wage costs in ($) obtained from production workers in private manufacturing.

e. Including luggage trade after 1996.

(p.420) **(p.421)** that induced the domestic terms of trade in favor of agriculture.

Import substitution reached its limits in 1976 when keeping up the investment drive and financing the consequent current deficits became increasingly difficult. The foreign exchange crisis of 1977–1980, accompanied by civil unrest and political instability, ended with an orthodox stabilization package (1980) and a right-wing military regime (1980–1983).

2.1. Major Turning Points and the Early Phase, 1981–1988/1989

Macroeconomic developments in the post-1980 period may be divided into two phases: 1981–1988/1989 and 1990–2000. The main characteristics of the first phase were export promotion with strong subsidies and gradually phased import liberalization, together with a managed floating exchange rate and regulated capital movements. The gradual but significant depreciation of the Turkish lira (TL) was one of the pillars of the new policy orientation. Severe depression of wage incomes and declining agricultural support measures continued during the years following the military regime. There was also a decisive shift toward a supply-side orientation in fiscal policies.[3]

Domestic financial liberalization was an additional component of the 1980s reforms. The early phase of financial liberalization turned out to be a painful process. The speedy lifting of controls on deposit interest rates and on credit allocation in mid-1980 led to the financial scandal of 1982. The crisis occurred when numerous money brokers (called “bankers”) who had flourished by offering very high real interest rates to savers via Ponzi financing schemes went under along with a number of smaller banks. Thereafter, the policy pendulum moved between reregulation and deregulation up till the late 1980s. But the trend, although gradual, was definitely toward the establishment of a liberalized financial system.

In retrospect, the mode and pace of financial reforms during the 1980s progressed in leaps and bounds, mostly following pragmatic solutions to emerging problems. The foreign exchange regime was liberalized early in 1984. Banks were allowed to accept foreign currency deposits from residents and to engage in specified external transactions. An interbank money market for short-term borrowing facilities became operational in 1986. In the following year, the Central Bank

diversified its monetary instruments by starting open market operations. The Capital Market Board, a supervisory and regulatory agency over the capital market, was established, which initiated the reopening of the Istanbul Stock Exchange.

During 1983–1987, export revenues increased at an annual rate of 10.8 percent, and the gross domestic product rose at an annual rate of 6.5 percent. These years were also characterized by the continued erosion of wage incomes—a process that had started early in the decade under the 1980 stabilization package and with the hostile measures against organized labor by the military regime.[4] The suppression of wages was instrumental both in lowering production costs and in squeezing domestic absorption. The share of wage labor in manufacturing value-added declined from an average of 35.6 percent in 1977–1980 to 15.4 percent in 1988 (see table 14.1), and average markup rates (gross profit margins as a ratio of current costs) in private manufacturing increased from 31 to 38 percent (Metin, Voyvoda, and Yeldan 2001a).

The severe deterioration of public sector balances in the late 1970s was brought under relative control during the 1980s. Compared with the crisis years of 1977–1980, the public sector borrowing requirement (PSBR) declined by more than 2 percentage points to 4.7 percent of the gross domestic product (GDP). Thanks to improved public and external accounts during the accelerated growth phase of 1983–1987, the gap between domestic savings and investment rates, which were recorded at 19.5 and 20.7 percent respectively, remained at a manageable magnitude (see table 14.1).

There were, however, adverse changes with respect to the composition of total fixed investments in tradable sectors. In fact, as gross fixed investments of the private sector increased by 14.1 percent during 1983–1987, only a small portion of this amount was directed toward manufacturing. The rate of growth of private manufacturing investments was on the order of half of this figure, at a rate of only 7.7 percent per annum, and could not reach its pre-1980 levels in real terms until the end of 1989. As data in table 14.1 attest, much of the expansion in private investments originated from housing investments that expanded by an annual average of 24.5 percent during 1983–1987.

This resulted in a significant anomaly as far as the official stance toward industrialization was concerned: in a period where outward orientation was supposedly **(p.422)** directed toward increasing manufacturing exports through significant price and subsidy incentives, the distribution of investments revealed a declining trend for the sector. The implications of this non-conformity between the stated foreign trade objectives toward manufacturing exports and the realized patterns of accumulation away from manufacturing constituted one of the main structural deficiencies of the growth pattern of the period. The impressive export boom of the 1980s was, thereby, essentially predicated on productive capacities established during the preceding decade. Thus, capacity constraints and limited technological upgrading contributed to the overall deceleration in the export growth of manufactures (by 4.4 percent) during 1989–2000.

The export-led growth path, which was dependent on wage suppression, the depreciation of the domestic currency, and extremely generous export subsidies, reached its economic and political limits by 1988. Regressive distributional policies were crucial to the internal logic of the model; but it was becoming more and more difficult to sustain them within the political and social context prevailing at the end of 1988. Two consecutive years of negative per capita growth and a new wave of populist pressures leading to distributional shocks immediately before the 1989 elections were evidence that the policy model of 1980–1988 had exhausted itself. The way out of the impasse (by accident or design) turned out to be the liberalization of the capital account in August 1989. The full convertibility of the Turkish lira was realized at the beginning of 1990.

2.2. Capital Account Liberalization and Its Consequences

The 1989 benchmark was, indeed, the second turning point in the economic policies of the post-1980 period in terms of both its distributional implications and macroeconomic consequences. The fiscal and financial dimensions of the shift toward populism and capital account liberalization will be reviewed further below. The macroeconomic consequences will be analyzed with regard to four aspects. First, optimistic expectations about financial deepening within the domestic financial markets did not materialize. Second, capital account liberalization made the economy vulnerable to newly emerging financial cycles. Third, substantial leakages from net inflows—that is, through capital outflows and reserve accumulation—transmuted the conventional linkages between growth, current account balance, and capital flows. And, finally, arbitrage-seeking ("hot money") inflows and outflows began to constitute a rising share of capital movements and contributed to rising external and domestic instability.[5]

2.2.1. Increased Fragility in the Domestic Financial Markets

One can easily trace the drastic effects of the unregulated opening of domestic financial markets and consequent financial deepening in the Turkish economy. Contrary to expectations, the public sector's share in financial markets remained high. The financing behavior of corporations did not show significant change, and credit financing from the banking sector and interfirm borrowing continued. Furthermore, the share of private sector securities in total financial assets fell. Thus, the observed upward trend of the proportion of securities to GNP originated from the new issues of public sector debt, particularly treasury bills. The commercial banking system was the major customer of such securities. The banks, in turn, were operational in marketing the T-bills to private households via repo operations. The repo–reverse repo trading volume, which stood at around US$5 billion in 1997, accelerated rapidly to $221 billion in 2000, or 110 percent of the GNP (see table 14.2). Securitized deficit financing through T-bills and other debt instruments led to an overall increase in real interest rates, including deposit rates. Hence, time deposits/GNP ratios tend to rise after 1996. In fact, with the implementation of positive interest rates and the new possibility of foreign exchange accounts for private households, financial deepening has meant increased foreign exchange deposits with substantial currency substitution.

Thus, it can be stated that the public sector securities and foreign exchange deposits were the pioneering symbols of financial deepening in Turkey in the 1980s and 1990s.

As Akyuz (1990) and Balkan and Yeldan (2002) attest based on these observations, the Turkish experience did not conform to the McKinnon-Shaw hypothesis of financial deepening with a shift of portfolio selection from “unproductive” assets to those favoring fixed capital formation. Indeed, throughout the course of these events, Turkish banks became **(p.423)**

Table 14.2 Financial Deepening in Turkey: Financial Assets and Monetary Indicators (% of GNP)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
I. Securities by Issuing Sectors													
Public Sector	6.9	7.7	5.5	7.4	15.9	16.8	22.7	19.8	35.3	22.9	29.4	38.7	37.5
Government Bonds	3.0	3.9	3.2	1.8	6.8	7.5	4.8	4.4	8.3	8.0	2.5	27.3	32.3
Treasury Bills	4.0	3.3	2.1	5.4	8.7	9.0	16.7	15.4	24.8	14.9	26.9	11.3	5.2
Private Sector	0.9	1.0	1.0	1.0	1.7	3.8	2.1	2.1	1.0	1.0	1.0	1.1	4.6
Shares	0.3	0.4	0.5	0.7	0.5	0.5	1.0	0.5	0.6	0.7	0.8	0.9	2.4
TOTAL	7.8	8.7	6.5	8.5	17.6	20.6	24.8	21.9	36.3	23.9	30.4	39.8	42.1
II. Monetary Indicators													

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Currency in Circulation	2.7	3.0	2.9	2.7	2.7	2.6	2.6	2.4	2.1	2.2	2.1	2.6	2.6
M1	8.8	8.5	7.9	7.4	7.1	6.5	5.9	5.0	5.6	4.7	4.3	6.3	6.5
M2	21.1	20.5	18.0	18.5	17.3	14.1	16.2	16.0	18.7	17.9	20.3	28.9	26.0
M2Y	28.4	26.6	23.5	26.5	26.6	23.7	30.7	30.7	36.8	34.5	36.3	51.3	45.4
Total Deposits	15.7	16.6	15.7	15.9	18.3	19.0	24.6	26.0	29.3	27.0	27.7	39.5	33.6
Demand Deposits	3.4	3.4	3.3	2.8	2.5	1.0	0.9	0.7	0.7	0.7	0.5	0.8	0.7
Time Deposits	7.2	8.8	8.3	8.1	8.1	5.3	7.6	8.1	10.5	9.8	11.2	16.3	13.6
FX Deposits	4.2	3.8	3.6	4.7	7.3	12.7	16.2	17.3	18.0	16.5	16.0	22.4	19.3
Banking Sector Credits	17.6	16.1	16.5	12.4	12.7	14.0	13.3	16.5	18.5	21.7	19.4	20.1	20.4

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
III. Securities Markets:													
Stock Exchange Trading Volume[a]					115	773	5,854	8,502	8,567	21,771	23,202	52,311	36,696
Government Securities Direct Transactions Trading Volume[a]								312	2,403	10,717	8,828	16,509	32,736
REPO—Reverse REPO										4,794	23,704	123,254	221,405

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Trading Volume[a]													

Sources: Central Bank, Quarterly Bulletins; SPO, Main Economic Indicators.

a. Millions US$.

(p.424) detached from their conventional functions, and started to act as institutional rentiers. They were able to make huge arbitrage gains when conditions were appropriate (see table 14.3), but became extremely vulnerable to exchange rate risks and to sudden changes in the inflation rate. In their new functions, they gradually emerged as the dominant faction within business groups, especially in terms of influencing and manipulating economic policies.

Some parameters of this process are reported in table 14.3. The net return on speculative arbitrage ("hot money") is given in column 1. This return is calculated as the rate of difference between the highest (nominal) interest rate offered in the domestic economy and the rate of (nominal) appreciation of the foreign currencies. It yields the net return to a foreign portfolio investment, which switches into Turkish lira, captures the interest income offered in the domestic economy, and switches back to the foreign currency at the end-of-period exchange rate. The difference between interest earned and the loss due to currency depreciation is the net earning appropriated by the investor.

The gross inflows and outflows of external credit to and from the banking system are tabulated under columns 2 and 3 of table 14.3, and the net flows of hot money injected into the domestic financial

Table 14.3 Arbitrage Returns, Gross ExternalCredits to Banks and Hot Money Inflows (Mn.$)

		Banking Sector Foreign Credits		
	Return on Hot Money[a]	Gross inflows	Gross Outflows	Net Hot Money Inflows
1988	–0.073			–126
1989	0.236			233
1990	0.293			3,139
1991	–0.038	43,186	42,523	–392
1992	0.154	64,767	62,363	2,439
1993	0.045	122,053	118,271	4,478
1994	–0.315	75,439	82,040	–5,913
1995	0.197	76,427	75,626	2,341
1996	0.329	8,824	8,055	2,198
1997	0.278	19,110	18,386	1,166
1998	0.254	19,288	19,225	2,267
1999	0.298	122,673	120,603	2,907
2000	0.133	209,432	204,691	4,863

Sources: Central Bank Balance of Payments Statistics; SPO Main Economic Indicators.

a. $[(1+R)/(1+E)-1]$; R: The highest rate of return offered in the domestic market; E: TL Rate of change of the exchange rate.

system are listed under column 4. All of these flows are highly sensitive to whether or not the domestic rate of return is positive; the net flows are observed to be of the expected sign. Net flows fluctuated widely, especially between 1993–1995 and 1998–2000. The gross inflows of the banking sector's external credit grew rapidly from $50 billion in 1991 to $120 billion in 1995. After a brief deceleration during 1996 and 1998, they again climbed to $108.6 billion in 1999. Under the disinflation program, the gross inflows and outflows of the banking sector foreign credit were $209 and $204 billion, respectively. This magnitude was in excess of the aggregate GNP in 2000!

A crucial factor behind all these developments was the collapse of public disposable income (which declined by 39 percent in real terms during the 1990s) owing to the emergence of negative public savings from 1992 onwards (see table 14.4, below). This was, essentially, the outcome of borrowing from domestic banks at high interest rates (see table 14.1) so that a rising portion of tax revenues was allocated to interest payments: the ratio of interest payments to tax revenues rose almost without interruption from 28 percent in 1992 to 77 percent in 2000. The magnitudes involved, more or less, made it inevitable that the financial system was directly shaped by the needs and methods of financing the public sector. Table 14.2 above documents this episode. The new issues of securities by the state increased from 6.9 percent of the GNP in 1988 to 38.7 percent in 1999. In contrast, issues by the private sector hovered around 1 percent of the GNP before jumping to 4.6 percent in 2000. Total banking credits as a percentage of GNP, however, actually declined over the initial phase of capital account deregulation and would reach the pre-liberalization share only seven years later, in 1996.

High interest rates offered by government bonds and treasury bills set the course for the dominance of finance over the real economy. As a result, the economy is trapped in a vicious circle: commitment to high interest rates and cheap foreign currency (an overvalued Turkish lira) against the threat of capital flight generates a floor below which real interest rates cannot decline. When adverse developments in the current account balance tend to become destabilizing, the only mechanism left to prevent the specter of a major devaluation and currency substitution and/or capital flight is further upward adjustment in the domestic interest rates. **(p.425)**

Table 14.4 Public Sector Balances (Real 1987 Prices, Billions TL)[1]

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Tax Revenues	10,313.8	11,818.9	13,855.2	13,965.6	15,145.1	17,452.2	15,597.0	15,830.0	17,065.0	20,099.2	22,235.4	22,458.0
Direct	3,983.1	5,120.1	5,879.7	6,013.8	6,359.6	7,115.8	6,820.7	6,061.9	6,195.1	7,380.5	9,668.1	9,346.9
Indirect	6,330.7	6,698.8	7,975.5	7,951.8	8,785.5	10,336.4	8,776.4	9,768.1	10,869.9	12,718.7	12,567.3	13,111.1
Factor Revenues	4,612.5	3,987.4	2,805.2	531.3	–70.4	729.2	1,732.1	3,122.4	4,493.9	4,662.1	5,172.9	5,698.9
Current Transfers	–6,077.6	–6,230.8	–5,892.8	–5,272.4	–5,947.8	–9,201.7	–9,504.5	–10,167.4	–13,897.9	–12,894.7	–16,163.6	–18,953.6
Public Disposable Income	9,866.1	10,587.0	12,095.6	10,196.4	9,966.8	9,498.1	8,083.3	8,779.7	7,755.4	11,912.6	9,919.9	7,351.5
Public Savings	4,970.8	3,801.4	3,084.7	613.1	–718.0	–2,660.6	–925.0	–69.0	–1,634.7	854.4	–2,110.2	–7,132.0
Public Investment	–6,147.9	–5,938.0	–7,762.3	–6,516.7	–5,926.4	–7,224.9	–3,071.7	–3,553.3	–5,101.9	–6,570.7	–7,115.6	–6,889.0

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Public Sav-Inv Balance	–1,177.2	–2,136.6	–4,677.6	–5,903.6	–6,644.4	–9,885.5	–3,996.7	–3,622.3	–6,736.6	–5,716.3	–9,225.8	–14,020.9
Ratios to GNP (%)												
PSBR	4.8	5.3	7.4	10.2	10.6	12.1	7.9	5.2	8.8	7.6	9.2	15.1
Budget Balance	–3.1	–3.3	–3.1	–5.3	–4.3	–6.7	–3.9	–4.0	–8.3	–7.6	–7.0	–11.6
Non-interest Primary Budget	0.8	0.3	0.5	–1.5	–0.6	–0.9	3.8	3.4	1.7	0.1	4.7	2.1
Gov. Net Foreign Borrowing	2.1	0.8	0.9	0.4	1.6	1.4	–1.7	–1.1	–0.9	–1.5	–2.0	0.6
Stock of GDI's [3]	5.7	6.3	6.1	6.8	11.7	12.8	14.0	14.6	18.5	20.2	21.9	29.3
Interest Payments on:	3.8	3.6	3.5	3.8	3.7	5.8	7.7	7.5	10.2	7.7	11.7	13.7

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Domestic Debt	2.4	2.2	2.4	2.7	2.8	4.6	6.0	6.2	9.0	6.7	10.6	12.6
Foreign Debt	1.4	1.4	1.1	1.1	0.9	1.2	1.7	1.3	1.2	1.0	1.0	1.1
Net New Domestic Borrowing/ Domestic Debt Stock (%)	41.7	48.5	40.7	41.7	58.6	48.9	53.1	52.4	57.8	52.4	49.5	49.3

Sources: SPO *Main Economic Indicators*; Undersecreteriat of Treasury, *Treasury Statistics, 1980–1999.*

1. Deflated by the wholesale price index.

2. Provisional.

3. Government debt instruments (government bonds + treasury bills). Exclusive of Central Bank advances and consolidated debts.

(p.426) 2.2.2. The Emergence of a New Cycle and Financial Crises

2.2.2.1. The Financial Cycle Dominates the Growth Process.

This unstable environment is closely linked with the emergence of a new financial cycle that, ultimately, dominates the growth process. Findings presented in table 14.5 depict one similarity and two differences between growth patterns of the 1980s and the 1990s.[6] On the one hand, the quantitative relationship between growth and current deficits remains stable and moderate during the two decades. This finding suggests that the external gap (in terms of the relative magnitude of foreign exchange requirements of given rates of economic growth) was practically unchanged between the two periods.[7]

On the other hand, an important difference is observed between the two decades when looking at the linkages between non-resident capital flows (i.e., *NKF(nr)*, following the notation of table 14.5), current deficits, and growth. During the 1980s, the linkages between these variables appear to be in the direction of growth → current deficits → capital inflows. In other words, a given growth rate generates current deficits that have to be covered by a somewhat larger margin of capital inflows from non-residents. The 1990s appear to have transformed the direction of the

Table 14.5 Net Capital Flows by Non-residents (NKF(nr)), Current Deficits (CD) and Growth (g)

	NKF(nr)/ GNP (%)	CD/ GNP (%)	g (%)*
Cumulative 1981–89	1.9	1.0	5.2
Cumulative 1990–99	3.4	0.8	4.2
1990	3.0	1.7	9.4
1991	0.2	–0.2	0.4
1992	4.3	0.6	6.4
1993	7.1	3.5	8.1

	NKF(nr)/ GNP (%)	CD/ GNP (%)	g (%)*
Cumulative 1990–93	3.8	1.5	5.5
Bust: 1994	–4.8	–2.0	–6.1
1995	3.5	1.4	8.0
1996	5.4	1.3	7.1
1997	5.8	1.4	8.3
Cumulative 1995–97	4.9	1.3	7.7
Bust: 1998	1.8	–0.9	3.9
1999	4.6	0.7	–6.1
2000	6.5	4.9	6.1

Source: IMF, Balance of PaymentsStatistics and official Turkish data.

*Period averages are logarithmic growth rates.

above linkage into capital inflows → growth → current deficits. Inflows from non-residents gradually become autonomous (incorporating a rising component of “hot money”)[8] and, depending on the degree of sterilization, impact domestic demand and uplift the growth rate and, ultimately, generate a higher level of current deficits. When inflows decline, the process is reversed by depleting reserves, monetary contraction, declining domestic demand, and an improved current balance. Hence, one of the crucial consequences of capital account liberalization turns out to be an increased degree of dependence of the growth path on autonomous capital movements.

There is, moreover, another striking difference between the growth paths of the two periods. During the 1990s, changes in the level and direction of capital movements generated a financial cycle of boom-bust-recovery that, in turn, resulted in the rising volatility of the growth rate. Growth during the 1980s—being, to a large degree, independent of autonomous capital flows—was essentially an export-led process supported, at first, by the post-crisis recovery of the early 1980s and, then, by the Özal government's expansionary policy stance (1984–1987). Although the last stage of this episode was stagnation and exhaustion, it was radically different from the bust phase of the financial cycles of the following decade.

Indeed, the post-1990 years exhibit four downturns (1991, 1994, 1998–1999, and 2001), the latter three of which also incorporate financial crises of varying intensity, and four booms (1990, 1992–1993, 1995–1997, and 2000). It is also striking that as we move into the twenty-first century, the duration of the mini business cycles seems to have shortened even further. In fact, the growth rate was negative in ten of the sixteen quarters from January 1998 up till the end of 2001.

2.2.2.2. An Anatomy of Financial Crises, Turkish Style.

A brief overview of the bust phases of these cycles that incorporated serious banking and/or currency crises, that is, 1994, 1998–1999, and 2001, will be helpful in this context. Tables 14.5 and 14.6 show that it is not possible to diagnose the underlying cause of these financial disturbances without observing the volatility of capital flows. 1994 appears to exhibit the most violent impact in this respect: net flows by non-residents were reversed into outflows reaching 4.8 percent of GNP. The absolute magnitude of the reversal represented by the difference in inflows between the two years, that is, 1994 minus 1993 figures **(p.427)**

Table 14.6 Net Capital Flows by Non-Residents (NKF(nr)), Recorded Net Capital Flows by Residents (NKF(r)), Errors and Omissions (EO), Current Account Balance (CA) and Reserve Movements (DR)

	NKF (nr)	NKF (r)	CA	EO	DR	NKF (r)/ NKF (nr)	EO/NKF (nr)	DR/NKF (nr)	CA/NKF (nr)
Expansion 1990–93	24,536	–10,333	–9,782	–2,932	–1,489	–0.421	–0.12	–0.061	–0.399
Bust 1994	–6,259	2,409	2,631	1,766	–547	*	*	*	*
1994–1993	–19,090	6,277	9,064	3,988	–239	*	*	*	*
Expansion 1995–97	27,173	–4,832	–7,454	–2,021	–12,866	–0.178	–0.074	–0.473	–0.274
Bust 1998	3,677	–3,453	1,984	–1,991	–217	–0.939	–0.541	–0.059	0.54
1998–1997	–7,623	–742	4,663	603	3,099	*	*	*	*
Boom 2000 (I-X)	15,179	–2,707	–7,598	–2,550	–2,324	–0.178	–0.168	–0.153	–0.501
*Bust–boom in 2000–2001***	–27,595	1,460	7,891	–665	18,909	*	*	*	
1980–1989	15,529	–3,471	–10,408	2,910	–4,560	–0.224	0.187	–0.294	–0.670
1990–2000	74,654	–23,785	–23,746	–5,898	–21,226	–0.319	–0.079	–0.284	–0.318
16 countries 1980–89						–0.228	–0.111	–0.118	–0.543

	NKF (nr)	NKF (r)	CA	EO	DR	NKF (r)/ NKF (nr)	EO/NKF (nr)	DR/NKF (nr)	CA/NKF (nr)
16 countries 1990+						–0.241	–0.060	–0.268	–0.431

Note: $NKF(nr) + NKF(r) + EO + DR + CA = 0$.

* Ratios are meaningless when *NKF* (*nr*) is negative.

** The cumulative values for November 2000 to September 2001–the cumulative values for January to October in 2001.

for *NKF(nr)*, equaled –$19.1 billion. Somewhat surprisingly, resident agents (essentially banks) acted in countercyclical fashion by eliminating their assets abroad and allocating funds to cover their losses in Turkey.[9] The net reversal of both non-resident and resident flows in 1994 compared with the 1993 figure was –$12.8 billion (i.e., 9.7 percent of GNP). The magnitude of the reversal forced the government into two consecutive devaluations of the Turkish lira and pushed the economy into a severe (i.e., –6.1 and –5.5 percent in terms of GNP and GDP, respectively) recession.

The 1998 bust also witnessed comparable reversals in capital movements. The net reversal of resident and non-resident flows between 1998 and 1997 reached up to –$8 billion, or 3.9 percent of the GNP. Although a currency crisis was averted, the outcome was the de facto bankruptcy of eight banks taken over formally by the so-called Savings Deposits Insurance Fund, or SDIS (in effect, by the treasury).[10] The burden on the exchequer due to the liabilities of these banks as of July 2001 was estimated to be around $14 billion or 9.3 percent of the GNP. The effect of these events on the productive sectors became visible from the last quarter of 1998, and the economy went into a severe recession that continued during 1999 when the GNP declined by 6.1 percent in real terms.

The year 2000 witnessed an exchange rate–based disinflation and stabilization program, designed, engineered, and monitored by the IMF. Starting from inflation rates of 68.8 and 62.9 percent at the end of 1999 in terms of CPI and WPI respectively, the program targeted 25 percent and 20 percent inflation rates for the two indices at the end of 2000. Furthermore, it programmed a 20 percent depreciation of the nominal Turkish lira against the basket of 1US$ + 0.77 euro. Upper limits for the net domestic assets of the Central Bank (CB) were set, and the monetary base was to be totally dependent on the purchases of foreign exchange by the CB. Together with lower limits for net international reserves and upper limits for the PSBR as performance criteria and with the exclusion of sterilization as a policy option, the program can be interpreted as a mild currency board (Yeldan 2001b).

The program appeared to be successful in the first ten months of its implementation. Monetary, fiscal, and exchange rate targets were fully met and the IMF praised the Turkish authorities on the successful implementation of the program. Although domestic **(p.428)**

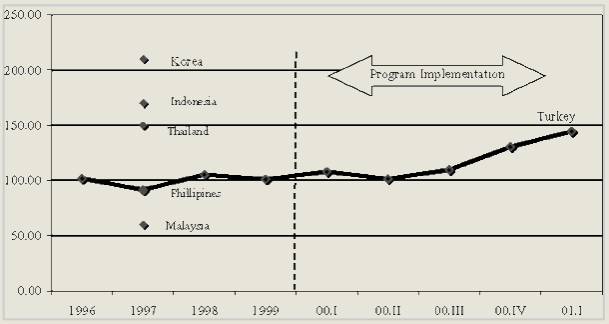

Figure 14.1 Short Term Foreign/Debt/CB Reserves (%)

price movements decelerated significantly from February onwards, the decline in inflation was less than the targeted rates of change of price indices and of nominal exchange rates. Between the last weeks of 1999 and 2000, the exchange rate basket rose by 20.3 percent, but rates of change in WPI and CPI indices were 32.7 and 39.0 percent, respectively. Disregarding the price movements of trade partners, these figures correspond to the real appreciation of the Turkish lira by 10.4 and 15.6 percent in terms of the two price indices, respectively.

The appreciation of the domestic currency was further boosted by an explosive growth in net capital flows by non-residents that reached $15.5 billion by the first ten months of 2000. This was reflected in the Central Bank's balance sheet: net external assets increased by 53 percent, and the monetary base by 46 percent between February and mid-November of 2000. In contrast, the wholesale price index rose by (roughly) 22 percent during the same period. Given the “initial success” of the program, risk margins narrowed and real interest rates on government debt instruments (GDIs) rapidly fell from an average of 33 percent in 1999 to practically zero during 2000. A very strong upturn in domestic absorption accompanied by the appreciation of the Turkish lira together with the impact of the Customs Union with EU were the major reasons behind the rapid expansion of the current account deficit to $9.5 billion by the end of 2000 (see table 14.1). This outcome was solely due to the deterioration of the trade balance.[11] By November, IMF officials started to express their concerns about the sustainability of the current deficit[12] and external investors appeared to share the same concern by liquidating their assets in Turkish lira, as international bankers started to call in their short-term loans to Turkish banks.[13]

Although real interest rates on government borrowing had declined to practically zero, short-term inflows continued throughout most of 2000, because strict commitment to

nominal exchange rate targets kept generating positive arbitrage rate expectations for banks, which, ex post, averaged 13 percent for the whole year.[14] Even though government bonds with maturities of 12–18 months purchased on lower rates were to generate serious problems for banks in 2001 (after the collapse of the exchange rate and when inflation was, once again rising), most banks continued to borrow short-term loans abroad during the year.

The ratio of short-term debt to international reserves that had stood at 101 percent at the inception of the program jumped to 152 percent in December 2000. Figure 14.1 portrays the trajectory of the short-term debt/Central Bank Reserves ratio in Turkey and compares it with the data observed in various East Asian economies at the onset of their crises in July 1997. In retrospect, considering the East Asian experiences, Turkey exhibited serious deterioration in **(p.429)**

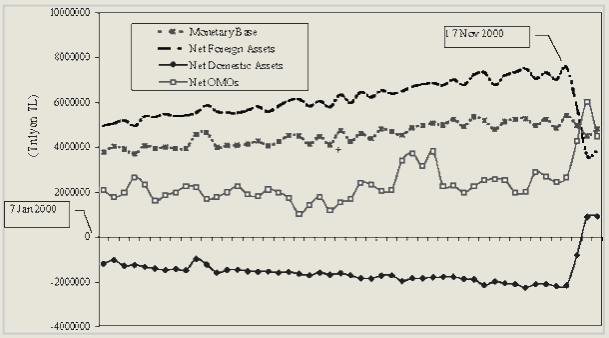

Figure 14.2 Monetary Base, Net Domestic Assets, Net Foreign Assets, and Net Open Market Operations (January 7, 2000–December 1, 2000, End-of-Week Observations)

terms of this fragility indicator throughout 2000. Thus, the program succeeded in reducing inflation but not enough to prevent significant currency appreciation. Moreover, it did so at the cost of the increased fragility of the banking system and the external vulnerability of the Turkish economy, as validated by the twin crises of November 2000 and February 2001.

A sudden outflow, as non-residents liquidated their treasury bills and equity assets, started a run against the Turkish lira in November. Additional foreign exchange demand resulted in the erosion of the Central Bank reserves by nearly $7 billion, whose net external assets declined by 52 percent in two weeks after mid-November. The macroeconomic impact was chaotic. As can be seen from figure 14.2, the Central Bank had played the role assigned to it under the program (i.e., the role of a de

facto currency board) successfully until November when the first sign of the crisis struck. The monetary base reflected the changes in net foreign assets, while net domestic assets were kept within targeted limits. With the abrupt fall in its net external assets, the Central Bank initially violated the IMF ban on open market operations, and managed to provide additional Turkish lira liquidity to banks. This maneuver, however, did not prevent the monetary base from contracting by 17 percent during the rest of the month, as most of the additional liquidity came back to the Central Bank as foreign exchange demand. Ultimately, the Central Bank reverted back to the non-sterilization rule, and the ongoing liquidity squeeze was aggravated as overnight interest rates climbed to exorbitant levels.

Short-term policies during the three months between the November and February crises were essentially aimed at preserving the exchange rate anchor at all costs. The reserve level continued to be low till the end of the year and contributed to a severe liquidity squeeze in the banking sector, high interest rates, and contractionary pressures on the economy. An agreement with the IMF late in December included a financial package of $10.5 billion. This funding kept the essential elements of the preceding program intact and replenished reserves early in January 2001.[15] Foreign exchange markets were temporarily stabilized, albeit at interest rates significantly above the pre-crisis levels.

Suppressing foreign exchange demand via exorbitant interest rates was clearly destabilizing. A political skirmish between the president and the prime minister was followed by a second attack on the Turkish lira in late February 2001. As interest rates rose to three-digit figures, the Central Bank had to sell $5.2 billion within two days. This amount roughly equaled the non-residents' net liquidation of Turkish lira securities **(p. 430)** (–$3.8 billion) and the amortization of short-term bank loans (–$1.3 billion). The 2000 program officially came to an end as the free floating of the currency was announced on February 22. By mid-May, a more conventional standby agreement with the IMF was finalized. The new program was structured around a long list of so-called structural reforms, which (with the exception of those related to the banking system) had no immediate or even medium-term relevance for

stabilization. It also included demand management via fiscal and monetary stringency, but with no targets for the exchange rate.

The impact of capital movements on the 2000–2001 cycle can be observed by the findings in tables 14.6 and 14.7 that, using monthly data, compare the boom phase (January to October 2000) with the bust phase (November 2000 to September 2001) of the cycle. Table 14.6 (row 8) shows the magnitudes involved as capital flows were reversed during the eleven months from November onward: the aggregate shock owing to the reversal in non-resident capital flows in 2000–2001 (i.e., –$27.6 billion) is significantly greater than those observed during the earlier crises in 1994 and 1998–1999. The breakdown of capital flows into non-resident and resident flows in table 14.7 confirms that the drift into financial crisis was predominantly the result of capital outflows originating from non-residents. Outflows from portfolio investments played the most crucial role, followed by the amortization of short-term bank loans. Residents,

Table 14.7 Capital Movements Before and During the 2000/2001 Crisis (Mn.$)

	2000 (I) to 2000 (X)	2000 (XI) to 2001 (IX)
A. NKF, nonresidents	**15,179**	**–12,416**
FDI	589	2,881
Portfolio	6,789	–9,063
Long-term flows	3,201	190
Short-term flows	4,600	–6,424
B. NKF, residents	**–5,257**	**–4,462**
FDI	–751	–497
Portfolio	–730	76
Short-term, recorded	–1,226	–826
Short-term, unrecorded (EO)	–2,550	–3,215

	2000 (I) to 2000 (X)	2000 (XI) to 2001 (IX)
C. Reserve changes [a]	**–2,324**	**16,585**
D. Current balance	**–7,598**	**293**

Sources: IMF, Balance of PaymentsStatistics and official Turkish data.

Note: $A + B + C + D = 0$

a. "–" signifies increase and vice versa.

particularly in terms of their recorded capital movements, once again acted countercyclically and their net outflows, including the unrecorded (i.e., *EO*) items, declined by $800 million. Even if this factor is included, the magnitude of the reversal between the first ten months of 2000 and the following eight months of all cumulative capital flows—*NKF(nr)*, *NKF(r)*, and *EO*—is an astounding–$27.6 billion!

Dramatic macroeconomic implications follow. The high tempo of inflows by non-residents during the first ten months of 2000 generated a boom with unstable characteristics. As external agents perceived the expansion as unsustainable, capital flows were reversed. The magnitude and suddenness of the reversal determined the depth of the financial crisis and its impact on the growth rate. Hence, in 2001 the economy moved into a depression (–9.4 percent in GNP) that was much more serious than those observed in the preceding crises. The contraction was accompanied by massive layoffs, rising inflation, increased social unrest, and a current account surplus that was, once again, essentially the result of import compression. Hence, as evidence from tables 14.6 and 14.7 shows, it is impossible to grasp the movement into a financial crisis and economic downturn unless we start with the analysis of capital flows.

2.2.2.3. Underlying Causes of Increased External Fragility.

There is some confusion in Turkey and elsewhere about the causes of financial crises. As discussed above, the underlying cause in the Turkish case is the impact (and, at times, positive and negative shocks) generated by large, uncontrolled capital movements with a large “hot” component within a fragile financial system. Weak prudential regulation of banks or large public deficits may aggravate the situation, but do not cause the collapse per se. And there is always an individual pretext that triggers the bust. A usual source of confusion is to see the pretext as the cause. Each case is unique in the sense that there are different events triggering financial disturbances. But crisis is ultimately the result of structural fragility generated by unregulated and chaotic capital movements and their impact on the financial cycle, without which the same trigger events would never have resulted in an economy-wide havoc.

To be able to take better account of the disruptive mechanisms of this structural fragility, let us note the well-known dilemmas faced by policy makers in a developing economy with an open capital account. **(p.431)** On the one hand, as is the case with Turkey currently, fiscal stringency is imposed by the rules of the game and using fiscal tools as a short-run macroeconomic policy option is off the agenda. On the other hand, under conditions of open capital accounts, the monetary authority can independently target either the nominal exchange rate or the interest rate, leaving the determination of the other to the interplay of market forces.

Evidence accumulated from developing country experiences in the last two decades overwhelmingly suggests that a liberalized capital account cannot be launched unless it is expected that a higher rate of return on domestic assets (deflated by the exchange rate) will be realized in comparison with the rate of return abroad. However, such a commitment favoring high domestic interest rates stimulates foreign inflows and leads to the appreciation of the domestic currency, further inviting an even higher level of hot money inflows into often shallow domestic financial markets. As a result, debt-financed public (e.g., Turkey) or private (e.g., Mexico and Korea) spending escalates. In order to accommodate this process, the central bank is forced to hold significant foreign exchange as reserves. In this setting, the only proper role

remaining for the monetary authority becomes that of monetary sterilization. Thus, the surge in the aggregate money supply is checked by restricting its domestic component. Consequently, domestic interest rates rise and the cycle recommences. Eventually, the bubble bursts as hot money rushes out of the country, and a series of severe and onerous macro adjustments takes place through very high real interest rates, sizable devaluations, and the severe entrenchment of aggregate demand.[16]

2.2.3. Rising Leakages from Non-resident Inflows

Capital account liberalization resulted in a rising gap between non-resident inflows and the current account during the 1990s, as has already been noted (see the first two rows of table 14.5). Factors contributing to the growing gap are not merely of theoretical interest. The cumulative current account deficit during the 1990s equaled $14.1 billion, whereas Turkey's external debt during the same period had risen from $42 billion to $102 billion—a dramatic increase of $60 billion, far in excess of the financing requirements of the current account. As long as the growth of the external debt is considered to be a policy issue, the analysis of factors that lead to the detachment of external borrowing and current account deficits becomes important in practical terms. Table 14.6, above, provides the basic quantitative framework for depicting these factors.

The well-known balance of payments (BOP) identity as depicted and defined in equation 1 in this chapter's appendix, that is, $NKF(nr) + NKF(r) + EO + DR + CA = 0$, constitutes the framework of table 14.6. The terms represent, respectively, net capital flows emanating from non-residents, residents' net flows, net errors and omissions, changes in reserves, and the current account balance. The same data can also be presented with slight modifications in terminology. By reversing the signs of the last four terms of the BOP identity, one can decompose the non-resident inflows into current deficits and "leakages" (i.e., recorded and non-recorded outflows by residents, and reserve accumulation). The conceptual framework for both representations is further elaborated in the appendix (see appendix equations 1 and 2).

Table 14.6 shows the striking change that occurs as a result of the liberalization of capital accounts after 1989. The ratios of $NKF(r)$, EO, DR, and CA within net non-resident flows,—that is, $NKF(nr)$—should be interpreted as the share of each type of utilization to which non-resident flows have been allocated. Findings on the values of each of the terms (and of the relevant ratios) during different phases of financial cycles as well as the cumulative sums for the 1980s and 1990s are summarized and analyzed in the following paragraphs of this section.

A negative value for *NKF(r)* signifies recorded capital outflows by residents. It will be observed that during the 1990s, with the exception of the crisis year of 1994 (when residents acted in countercyclical fashion and engaged in net inflows), *NKF(r)* was negative. In relative terms, their drain on the capital account was particularly heavy during the financial bust in 1998 (when the current account was in surplus), as recorded resident outflows as a ratio of *NKF(nr)* rose to 94 percent. Comparing the 1980s with the 1990s, it is observed that capital controls really do make a difference. The ratio of the residents' outflows to non-residents' inflows rose by 10 percentage points from 22 to 34 percent during the latter decade.

Throughout this study, the "net errors and omissions" *(EO)* item of the BOP statistics is treated as unrecorded capital movements by residents. A **(p.432)** negative *EO* value is, thus, considered as capital flight.[17] The liberalization of capital flows should, generally, be expected to transform unrecorded capital movements into recorded items by legalizing the former. This factor, together with improved statistical methods, should result in lower values, at least in relative terms for the *EO* item. This appears to be the case for a sample of sixteen emerging economies[18] during the 1990s, compared with the preceding decade, when the share of capital flight (as represented by negative *EO* values) within non-resident inflows declined from 11.1 to 6 percent (see table 14.6, column 8, last two rows).

The Turkish experience, however, was directly the opposite. During the 1980s the net balance of the *EO* item was positive (i.e., 18.7 percent of *NKF[nr]*), probably owing to the reversal of capital flight that took place during the severe crisis of the late 1970s. This positive contribution would, thereby, offset most of the recorded residents' flows, the cumulative sum of which was negative during the earlier decade (i.e., –22.4 percent of *NKF[nr]*). The 1990s reversed the direction of capital flight by changing the cumulative *EO* item into negative values, and residents' unrecorded capital movements as a ratio of total non-residents' flows were –6 percent. Thus, recorded and unrecorded capital movements by residents ($NKF[r] + EO$) together constituted a 40.4 percent drain on the non-residents' inflows—a radical deterioration that can only be

understood within the context of the liberalization of the capital account.

Under a regime of controlled mobility of international capital, the adequate level of reserves was traditionally regarded as three or four months of imports for covering the time lags between payments for imports and export receipts, as well as for offsetting temporary disequilibria in the current account. Capital account liberalization radically changed and broadened the criteria of reserve adequacy, and brought forth such indicators as the "ratio of reserves to short-term debt plus the stock of portfolio equity," the "ratio of foreign-assets-to currency (usually M2Y)," and a minimum level in excess of the scheduled amortization of external debt. For example, after observing that "foreign exchange reserves and reserve policy played an important role in the recent financial crises," in 1999 Alan Greenspan suggested that "countries could be expected to hold sufficient liquid reserves *to ensure that they could avoid new borrowing for one year*" (italics added).[19]

These new and drastic adequacy requirements for reserve levels have pushed most developing countries to move into an accelerated rate of reserve accumulation in "normal" periods. The outcome has been an additional and "expensive"[20] drain on non-resident inflows. However, the aforementioned drain of reserve accumulation on net inflows in Turkey does not show much change in the pre- versus post-liberalization years (see column 8 in table 14.6). Period averages, however, were affected by the severe drain on Central Bank reserves in late 2000, which pulled total reserve accumulation for that year to practically zero. Table 14.7 depicts the turbulence in capital movements that adversely affected the Turkish economy during the 2000–2001 crisis. Reserve accumulation amounting to $2.9 billion for the first three quarters of 2000 was reversed during the last quarter, when $2.5 billion in reserves were depleted. If the 2000 data are disregarded, between 1989 and 1999 the net increase in reserves amounted to $19.9 billion, constituting 84 percent of the total increase ($23.8 billion) in the import bill; whereas the similar ratio for developing countries as a whole was 60 percent, which is still considered excessive.[21]

These developments in capital movements during the past decade are not limited to Turkey. For comparative purposes, the last two rows of table 14.6 present the data for sixteen

emerging economies (including Turkey) for the two decades. For all sixteen countries as well as Turkey, the share of current deficit financing out of non-resident inflows has declined, but the decline is much more substantial for Turkey (i.e., from 67 to 32 percent) compared with the others (from 54 to 43 percent). During the last decade, the shares of recorded and unrecorded resident outflows have been substantially higher in Turkey and those of reserve accumulation have been similar. These findings suggest that the impact of capital account liberalization in Turkey on the reallocation of capital inflows has been much more substantial than in comparable emerging economies.

2.2.4. Arbitrage-Seeking Short-Term Capital ("Hot Money") Flows

Another disturbing feature of capital flows during the 1990s is the increasing magnitude, both in absolute and relative terms, of hot money flows (see appendix 1 for the conceptual and empirical specification of hot money).

(p.433) In a developing economy, hot money flows emerge from the arbitrage-seeking activities of rentiers and banks (both non-residents and residents) as well as of firms (essentially residents). The arbitrage returns, defined as the speculative gain for rentiers between the highest (nominal) interest offered in the domestic economy and the rate of (nominal) change in the exchange rate (defined as Turkish lira per dollar), are calculated in table 14.3, above. It should, however, be pointed out that the same variables similarly affect the behavior of banks borrowing abroad and moving into TL assets (e.g., government debt instruments) or firms borrowing in foreign exchange but spending in TL. The rate of return minus the risk premium compared with rates of return abroad determines the direction of hot money flows. Table 14.8 provides empirical findings on hot money movements distinguished between residents and non-residents. The following observations are worth noting.

1. The mere magnitude of gross short-term capital movements must be a source of concern. Columns 2 and 3 of table 14.3, above, report the gross flows of banks' foreign credit acquisitions and repayments for the post-1991 period. Even if we take into consideration that some of these figures include double counting due to the renewal of short-term bank liabilities more than

once every year, the relevant magnitudes point at one of the most important sources of instability in the financial system.

2. It was predominantly short-term arbitrage-seeking (i.e., "hot") capital movements that were affected by capital account liberalization in 1989.[22] The net balance of 1990–2000 is negligible (i.e., $262 million). But if we include the dramatic outflows during the recent crisis, the net balance for "hot money" for the 1990–2001 (January–September for the last year) period, thus, turns out to be –$13.1 billion.[23] This is significantly different from the earlier decade when "hot" non-resident inflows were of negligible magnitudes, but reverse capital flight acted as a positive factor in financing current deficits. It is observed that the 1989 turning point affected arbitrage-seeking flows by raising non-resident inflows substantially, particularly during the boom phases of the cycle but, more importantly, by reversing the direction of residents' flows into recorded and unrecorded outflows, exceeding the total of hot money inflows since 1990.

3. Since "arbitrage seeking" is determined by the same variables regardless of the residence of the relevant agent, how can we explain the divergence between the actions of residents and non-residents? Indeed, as briefly discussed earlier, residents had acted in countercyclical fashion during the 1994 and the 2000–2001 crises (see table 14.8). Two (not necessarily mutually exclusive) hypotheses are worth testing empirically: one explanation is that residents might have contradictory expectations about the behavior of exchange rate movements and/or external agents' greater willingness to take "moral hazard–based risks" (this ultimately turned out to be justified). Alternatively, resident rentier behavior may be a transitional

Table 14.8 Direction and Magnitude of "Hot Money" Movements from Non-residents and Residents

	Hot Money: Nonresidents (1)	Total Nonresident Flows (2)	(3) = (1)/(2)	Hot Money: Residents (4)	Total Resident Flows (5)	(6) = (4)/(5)	Net Hot Money (7) = (1) + (4)
1990–93	9,664	24,536	0.394	–12,278	–13,265	0.926	–2,614
1994	–5,913	–6,259	0.945	4,212	4,175	1.009	–1,701
1995–97	5,705	27,173	0.21	–3,233	–6,853	0.472	2,472
1998	2,267	3,677	0.617	–3,286	–5,331	0.616	–1,019
1999	2,907	8,646	0.336	–1,333	–2,076	0.642	1,574
2000	4,863	16,362	0.297	–4,572	–6,215	0.736	291
1980–89	2,454	15,529	0.158	213	–561	*	2,667
1990–2000	19,493	74,654	0.261	–19,231	–29,683	0.648	262
2001 (I–IX)	–9,222	–10,283	0.897	–4,100	–3,495	1,173	–13,322
90–01 (I–IX)	10,271	64,371	0.16	–23,331	–33,178	0.703	–13,060

Sources: IMF, Balance of PaymentsStatistics and official Turkish data.

*Ratios are meaningless when signs of hot money and total flows are different.

(p.434) phenomenon of one-off portfolio diversification, the impact of which will wear off after the first substantial movement abroad is exhausted.

4. The shares of "hot money" within capital flows of both residents and non-residents have risen substantially since the liberalization of capital accounts. For non-residents, the "hot inflows"/total inflows ratio has risen by more than 5 percentage points to 26.1 percent during 1990–2000 as compared with the preceding decade (with, however, a highly fluctuating pattern). For residents, "hot" outflows constitute 65 percent of total outflows during the same period. Hot money movements are much more volatile than other capital flow categories, particularly when crisis periods are included.
5. The 1994 and 2000–2001 data in table 14.8 clearly show the contribution of hot money movements to the emergence and deepening of financial crises. Within eleven months following October 2000, net recorded and unrecorded hot money flows by non-residents and residents reached –$13.3 billion and, to say the least, generated an extremely adverse and destabilizing impact on the economy.

To summarize, the liberalization of the capital account in Turkey in 1989 has pushed the economy into an unstable and risky path in four ways: (1) the fragility of the domestic financial system has increased substantially; (2) the growth path of the economy has become more volatile, subject to a newly emerging financial cycle, and the period between its boom and bust phases has shortened considerably; (3) drains or "leakages" out of inflows have increased in relative terms, and the external debt has grown at a pace totally unrelated with the external financing needs of economic growth; and, finally, (4) arbitrage-seeking and short-term capital ("hot money") flows constitute a rising share of total capital movements from both residents and non-residents, and this phenomenon has begun to destabilize the economy.

3. Economics of Macro Adjustment: Sources of Aggregate Demand

In order to trace the patterns of adjustment to financial liberalization, we will deploy a series of decomposition analyses of macro aggregates of final demand. Since liberalization, there have been substantial swings in the

parameters governing the demand “injections” (such as investments, government expenditures, and exports) and “leakages” (i.e., savings, taxes, and imports).

Much of the variability in aggregate demand in the Turkish economy is induced by the state's fiscal stance. The escalation of public deficits via ever-rising costs of (internal) debt servicing became the dominant element in aggregate demand. The costs of domestic debt servicing were so explosive that, by as early as 1992, public savings had turned into deficits. By 2000, interest costs on domestic debt reached 80 percent of the overall tax income of the public sector. In all likelihood, the disposable income of the public sector, itself, is likely to be negative by the end of 2001.

3.1. Decomposition of the Sources of Effective Demand

We will address these developments utilizing the analytics provided in Godley (1999) and Berg and Taylor (2001) where the following decomposition measure is applied over effective demand. At the sectoral level, total supply, X is given by the sum of GNP, Y, and imports, M. Total GNP, in turn, can be partitioned into private disposable income, Y^p, and public disposable income, Y^G, loosely referred to as aggregate tax income, T. Thus $Y = Y^p + T$.

Goods market equilibrium necessitates the balance of aggregate supply and demand (sum of private consumption, C^p; private investment, I^p; government expenditures, G; and net exports, E-M). Denoting the following “leakage” parameters relative to aggregate GNP as

$$s_p = \frac{Y^P - C^P}{Y}$$

$$t = \frac{T}{Y}$$

$$m = \frac{M}{Y}$$

one can obtain the following version of the (Keynesian) multiplier function:

$$Y = \frac{s_P}{s_P + t + m}\left(\frac{I^P}{s_P}\right) + \frac{t}{s_P + t + m}\left(\frac{G}{t}\right) + \frac{m}{s_P + t + m}\left(\frac{E}{m}\right)$$

Here, I^p/s_p, G/t, and E/m are the direct “own” multipliers of, respectively, investments, government expenditures, and exports. The overall impact of injections is scaled by the corresponding leakages of savings, tax burden, and import propensities.

(p.435)

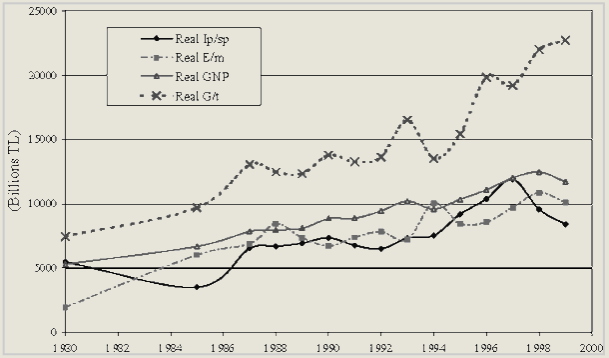

Figure 14.3 Decomposition of the Sources of Macroeconomic Demand (Real 1980 Prices)

We portray the evolution of the values of key parameters in figure 14.3. The abrupt expansion of *G/t* clearly stands out against other demand components. The dismal performance of $I^p/s_p < Y$ discloses the channeling of investable funds away from real fixed investment toward financial speculation targeted at the government's deficit financing and the securitization of domestic debt. Real exports as scaled by the import propensities, *E/m*, also fall short of GNP throughout the post-liberalization era. The only two exceptions occurred in 1998 and then again in 1994—both being crisis years during which imports contracted severely.

How dependable is the source of *G/t* in sustaining growth in GNP? Or, in other words, should we regard the massive injection provided by the *G/t* as a healthy source of growth? To properly assess the impact of *G/t*, we further decompose *G* into its components. We deduct transfer expenditures from *G* wherein the most important item is interest costs on domestic debt. We then carry out the same analysis by employing *G** as real non-interest government expenditures (on goods and services).

This revision sheds a totally new light over the state's stance as the source of demand. Real non-interest government expenditures, scaled by *t* (*G**/*t*), becomes much weaker as a source of injection in the first half of the 1990s. After 1994, the post-crisis management severely reduced the *G**/*t* component. Even so, the public sector continued to provide a relatively stronger demand pull compared with exports. Thus, the foreign sector has continuously been a laggard throughout the whole post-financial liberalization era. Private investments behaved comparably at par with public spending during 1994

through 1996. After then, however, investment lost all its impetus as limited domestic savings were channeled to the securitization of the fiscal deficits and financial savings dominated the incentives against fixed investments in the real sector. These patterns are portrayed in figure 14.4.

3.2. Deterioration of the Fiscal Balances

The post-1988 period witnessed a drastic deterioration of the fiscal balances in Turkey. Public sector borrowing requirement (PSBR)/GNP ratios averaged 4.5 percent during 1981–1988 but rose to 10.2 percent in 1991 and averaged 9.4 percent over 1990–1999. By the end of 1999, PSBR reached 15.1 percent of GNP and is anticipated to rise even further in 2001. Before investigating the consequences of this on resource use

(p.436)

and income distribution, it will be useful to overview the factors that generated this deterioration. We document this deterioration in table 14.9, which is based on real values of the fiscal accounts using 1987 prices.

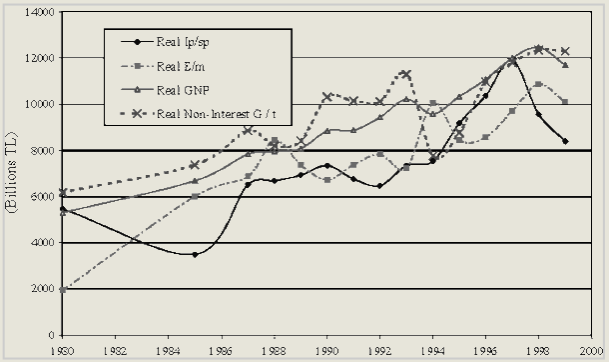

Figure 14.4 Decomposition of the Sources of Macroeconomic Demand (Real 1980 Prices)

Note that during 1988–1993, the major erosion has occurred in the factor revenues item, that is, in net factor income generated by the state economic enterprise system. Factor revenues of the state declined by 86 percent in five years (in real terms). The real erosion up till 1992 corresponds to approximately 5 percent of the GNP of that period. The swift upward movement in transfer expenditures started in 1992. Between 1991 and 1996, the increase was more than 125 percent in real terms. The major item in this account was interest payments. The rise in domestic debt gave way to a rapid buildup of interest costs.

On the revenue side, tax collections had registered modest improvements in real terms (by 50 percent up till 1993), but they started to decline thereafter (essentially owing to the erosion of direct taxes). The share of indirect taxes in the total rose from 59 percent in 1990 to 64 percent in 1997.

These developments led to a sharp collapse in the disposable income of the public sector, which declined by 45 percent in real terms. As we shall discuss, this decline had devastating effects and generated strong pressures on the provision of public services and/or raised the PSBR to unprecedented levels.

In this context, it is important to note a fundamental change in the financing of the PSBR, compared with the pre-liberalization period of the 1970s and 1980s. Data on the financing patterns of the PSBR suggest that, under the financially repressed conditions of the 1970s and early 1980s, the most direct method of deficit financing was through Central Bank advances (monetization). However, after embarking on the path of structural adjustment, especially with the removal of interest ceilings in a series of reforms throughout the 1980s, the Turkish private sector faced a new phenomenon: positive real rates of interest. Financial institutions and rentiers swiftly adapted to changes in the rates of interest during the 1980s, and the government found it much easier to finance its borrowing requirements from domestic borrowing through issues of government debt instruments (GDIs). This also enabled successive governments to bypass many of the formal constraints on their fiscal operations. Consequently, with the advent of full-fledged financial liberalization after 1988, PSBR **(p.437)**

Table 14.9 Public Sector Balances (Real 1987 Prices, Billions TL)[1]

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Tax Revenues	10,313.8	11,818.9	13,855.2	13,965.6	15,145.1	17,452.2	15,597.0	15,830.0	17,065.0	20,099.2	22,235.4	22,458.0
Direct	3,983.1	5,120.1	5,879.7	6,013.8	6,359.6	7,115.8	6,820.7	6,061.9	6,195.1	7,380.5	9,668.1	9,346.9
Indirect	6,330.7	6,698.8	7,975.5	7,951.8	8,785.5	10,336.4	8,776.4	9,768.1	10,869.9	12,718.7	12,567.3	13,111.1
Factor Revenues	4,612.5	3,987.4	2,805.2	531.3	–70.4	729.2	1,732.1	3,122.4	4,493.9	4,662.1	5,172.9	5,698.9
Current Transfers	–6,077.6	–6,230.8	–5,892.8	–5,272.4	–5,947.8	–9,201.7	–9,504.5	–10,167.4	–13,897.9	–12,894.7	–16,163.6	–18,953.6
Public Disposable Income	9,866.1	10,587.0	12,095.6	10,196.4	9,966.8	9,498.1	8,083.3	8,779.7	7,755.4	11,912.6	9,919.9	7,351.5
Public Savings	4,970.8	3,801.4	3,084.7	613.1	–718.0	–2,660.6	–925.0	–69.0	–1,634.7	854.4	–2,110.2	–7,132.0
Public Investment	–6,147.9	–5,938.0	–7,762.3	–6,516.7	–5,926.4	–7,224.9	–3,071.7	–3,553.3	–5,101.9	–6,570.7	–7,115.6	–6,889.0

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Public Sav-Inv Balance	–1,177.2	–2,136.6	–4,677.6	–5,903.6	–6,644.4	–9,885.5	–3,996.7	–3,622.3	–6,736.6	–5,716.3	–9,225.8	–14,020.9
Ratios to GNP (%)												
PSBR	4.8	5.3	7.4	10.2	10.6	12.1	7.9	5.2	8.8	7.6	9.2	15.1
Budget Balance	–3.1	–3.3	–3.1	–5.3	–4.3	–6.7	–3.9	–4.0	–8.3	–7.6	–7.0	–11.6
Non-interest Primary Budget	0.8	0.3	0.5	–1.5	–0.6	–0.9	3.8	3.4	1.7	0.1	4.7	2.1
Government Net Foreign Borrowing	2.1	0.8	0.9	0.4	1.6	1.4	–1.7	–1.1	–0.9	–1.5	–2.0	0.6
Stock of GDIs [3]	5.7	6.3	6.1	6.8	11.7	12.8	14.0	14.6	18.5	20.2	21.9	29.3
Interest Payments on:	3.8	3.6	3.5	3.8	3.7	5.8	7.7	7.5	10.2	7.7	11.7	13.7

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999[2]
Domestic Debt	2.4	2.2	2.4	2.7	2.8	4.6	6.0	6.2	9.0	6.7	10.6	12.6
Foreign Debt	1.4	1.4	1.1	1.1	0.9	1.2	1.7	1.3	1.2	1.0	1.0	1.1
Net New Domestic Borrowing/ Domestic Debt Stock (%)	41.7	48.5	40.7	41.7	58.6	48.9	53.1	52.4	57.8	52.4	49.5	49.3

Sources: SPO *Main Economic Indicators*; Undersecreteriat of Treasury, *Treasury Statistics, 1980–1999.*

1. Deflated by the wholesale price index.

2. Provisional.

3. Government debt instruments (government bonds + treasury bills). Exclusive of Central Bank advances and consolidated debts.

(p.438) financing relied almost exclusively on issues of GDIs to the internal market—especially to the banking sector.

The underlying characteristic of domestic debt management was its extreme short-term outlook. Net new domestic borrowings, as a ratio of the stock of the existing debt, rose to almost 50 percent over the 1990s. This ratio increased to 58 percent in 1992, indicating that each year the state had to resort to net new borrowing, reaching half of the stock of debt already accumulated. Thus, the public sector was trapped in a short-term rolling of debt, or Ponzi financing. This clearly unsustainable process contributed to the so-called confidence crisis of the 1990s. For this scheme to work, however, domestic financial markets required the continued inflow of short-term capital inflows. This necessitated a combination of high real rates of interest, along with an appreciation of the lira.

3.3. Decomposition of the Fiscal-Real Linkages

Given that the evolution of the financial sector has mostly been related to the debt-servicing costs of a public sector with unsustainable amounts of debt, it would be illuminating to repeat the above decomposition exercise from the perspective of real-financial linkages.

The equation system introduced in section 3.1, above, can be used to obtain the real-financial balance within the domestic economy:

$$\Delta F_p + \Delta D + \Delta A = (\mathrm{Ip} - \mathrm{spY}) + (G - \mathrm{tY}) + (E - \mathrm{mY})$$

where ΔF_p, ΔD, and ΔA stand, respectively, for the net change in financial claims against the private sector, in the government's domestic debt, and in foreign assets. Clearly, when the balance between the injections and withdrawals of any entity (the private sector, the government, or the rest of the world) is positive, then financial claims against that entity must be rising. So, for instance, when $G > tY$, it means that the government is accumulating debt. (Since in the Turkish context, the government's net foreign borrowing was virtually non-existent during the 1990s—see table 14.8—this meant the buildup of domestic debt.) Similarly, $E < mY$ indicates that net foreign assets of the home country are declining. Since it must be true that at any point in time

$$\mathrm{dFp}/\mathrm{dt} + \mathrm{dD}/\mathrm{dt} + \mathrm{dA}/\mathrm{dt} = 0$$

the expansionary stance of the government ($G > tX$) must be matched by some other entity increasing its asset holdings or reducing liabilities. In the Turkish case, this primarily meant the buildup of domestic assets in the hands of the domestic banking sector (with injections of liquidity from the rest of the world via short-term capital inflows). Under these conditions, banks' assets mostly consisted of the domestic debt instruments of the government, while their liabilities were mostly short-term foreign borrowings. This operation by itself deepened much of the fragility already existing in the system due to the mismatch between the maturity and currency compositions of domestic assets and foreign denominated liabilities.

This mismatch, often referred to as short positions of the banking system, reached almost $15 billion or about 7 percent of the GNP by the end of the decade, and increased the vulnerability of the banking system with a high devaluation risk. With the rise of the gap in the open positions of the banking system, the ongoing risk premium of new borrowing increased secularly until net capital flows reversed as in late 1998, and again in November 2000. The necessary adjustments to bring the system back to the financial asset-liability stock-to-stock equilibrium were indeed onerous and painstaking.

Now utilizing the GNP identities once again, let us distinguish private from public consumption as C^p and C^g and I^p and I^g respectively. Disposable income in the private sector channels either into private consumption, C^p, or into private savings, S^p. This works similarly for the public sector. We thus obtain

$$I^P + I^G + E = (Y^P - C^P) + (Y^G - C^G) + M$$

The two terms in the parentheses on the right-hand side reflect, respectively, the private savings and the public savings. Denoting $s_G = (Y^G - C^G)/Y^G$, and using the remaining variables as defined above, we get a version of the decomposition equation above, this time reflecting the investment-saving balances of the respective entities:

$$Y = \frac{s_P}{s_P + s_G + m}\left(\frac{I^P}{s_P}\right) + \frac{s_G}{s_P + s_G + m}\left(\frac{I^G}{s_G}\right) + \frac{m}{s_P + s_G + m}\left(\frac{E}{m}\right)$$

Table 14.10. documents the relevant parameters and the main indicators of the aggregate demand decomposition. The most striking observation is the negative saving performance of the

public sector beginning in 1992. This fact alone induces a severe **(p.439)**

Table 14.10 Sources of Aggregate Demand: Main Indicators and Parameters

	sg	sp	m	t	Real GNP	Real Ip/sp	Real Ig/sg	Real E/m	Real G/t	Real Non-Interest G/t
1980	0.045	0.127	0.120	0.167	5,303.0	5,470.6	10,913.5	1,945.3	7,449.1	3,096.0
1985	0.077	0.210	0.189	0.141	6,688.2	3,494.7	7,778.1	6,017.1	9,701.3	2,981.1
1987	0.066	0.173	0.177	0.160	7,840.5	6,519.8	12,226.4	6,879.4	13,058.5	3,815.4
1988	0.068	0.204	0.176	0.156	7,955.4	6,692.9	9,839.4	8,454.4	12,467.8	3,884.7
1989	0.047	0.174	0.175	0.159	8,084.1	6,931.4	12,626.7	7,366.7	12,354.5	4,687.2
1990	0.034	0.186	0.174	0.167	8,843.7	7,349.5	22,254.8	6,724.2	13,801.9	5,753.1
1991	0.007	0.206	0.165	0.174	8,872.9	6,766.0	94,314.6	7,382.7	13,280.3	6,277.3
1992	–0.008	0.224	0.172	0.182	9,442.7	6,486.8	–77,942.3	7,835.2	13,642.3	6,628.0
1993	–0.027	0.254	0.192	0.181	10,212.7	7,338.3	–27,732.3	7,219.4	16,544.6	7,209.3
1994	–0.011	0.242	0.203	0.188	9,589.8	7,537.5	–31,843.7	10,050.1	13,530.4	5,924.1
1995	–0.001	0.222	0.241	0.171	10,349.7	9,187.0	–465,263.4	8,454.4	15,430.6	6,467.8
1996	–0.017	0.215	0.274	0.169	11,087.3	10,385.2	–34,602.9	8,583.5	19,837.7	7,492.3
1997	0.005	0.205	0.298	0.183	12,007.6	11,912.2	158,963.3	9,713.1	19,215.5	7,883.9
1998	–0.019	0.235	0.272	0.191	12,471.8	9,571.7	–42,055.3	10,880.1	21,992.9	8,108.3
1999	–0.069	0.222	0.266	0.202	11,709.2	8,407.2	–10,582.5	10,116.7	22,725.3	8,697.8

	sg	sp	m	t	Real GNP	Real Ip/sp	Real Ig/sg	Real E/m	Real G/t	Real Non-Interest G/t
2000	–0.052	0.221	0.309	0.244	13,048.6	9,488.4	–16,655.0	9,977.4	21,740.6	7,439.7

Note: For symbols, see text. Real quantities are in billions TL, deflated by the GNP deflator (1980 = 100).

volatility in the investment patterns, as I^G/s_G ratios become negative after 1992 (with the exception of 1997). This observation pertains despite the secular rise of the tax burden, t. The import coefficient is also observed to rise by almost twofold from 0.12 in 1980, to 0.31 in 2000.

Much of the expansion in I^p/s_p and E/m is absorbed by the negative saving performance of the public sector, and the abrupt financing demands of the government increase uncertainty and risk in the financial markets. It also increases the volatility of the money multiplier as the government calls for many auctions to dispose off its debt instruments.

4. Microlevel Adjustments in the Manufacturing Sector

In this section, we investigate the structural consequences of the post-1980 outward orientation on market concentration and productivity in the Turkish manufacturing industries. To this end, we will refer to recent Turkish literature and report on the concentration tendencies and oligopolistic markup pricing practices prevalent in this sector. Furthermore, we shall employ a new set of decompositions on productivity and employment patterns to reveal the leading/lagging subsectors within manufacturing.

The period under analysis spans the overall transformation of the Turkish economy from domestic-oriented, import-substitutionist industrialization to one emphasizing export orientation and integration with global markets. During this period, manufacturing has evolved as the leading sector, both in terms of the degree of its export orientation and as a focal area where distribution patterns between wage labor and capital have been reshaped.

Independent studies[24] and rudimentary data from official agencies provide (both formal and anecdotal) evidence that one of the major structural deficiencies of manufacturing reveals itself in the rather loose association between export penetration gains and labor productivity, on the one hand; and the dismal patterns of employment, accumulation, and wage labor remunerations, on the other hand. This deformation is, in fact, a perennial feature of the post-1980 structural adjustment era. In their analysis of the decomposition of labor productivity in manufacturing, Voyvoda and Yeldan (2001) report that, since the inception of the structural adjustment reforms and outward orientation, the underlying sources of productivity gains have not significantly altered in this sector.

They find that none of the leading export sectors of the 1980s have generated sufficiently strong productivity contributions or admitted strong interindustry linkages to serve as the leading sectors propelling the rest of the economy.

Given this background, there exists considerable evidence on the extent of monopolization and high concentration in the Turkish manufacturing **(p.440)** industries. The State Institute of Statistics data suggest, for instance, that the process of export orientation and overall trade liberalization since 1980 has not affected the structural characteristics of the manufacturing industry. Many of the monopolistic sectors either kept their existing high rates of concentration or even suffered from increased monopolization as measured by their CR4 ratios or Hirfindahl indexes. Even among many competitive sectors of 1980, one observes increases in the CR4 ratios by 1996.[25]

These observations suggest that, contrary to expectations, the opening process was unable to introduce increased competition in the industrial commodity markets. Here we attempt to formalize these observations and deduce econometric hypotheses on the patterns of trade liberalization, concentration, and profitability. To this end, we will summarize the results obtained by Metin, Voyvoda, and Yeldan (2001a), who investigated these empirical questions using various panel data procedures. The relevant data cover twenty-nine sub–sectors of Turkish manufacturing for the 1980–1996 period. We focus on three sets of issues: (1) the effect of openness on the extent of market concentration, as measured by CR4 rates; (2) the behavior of gross profit margins (markups) in relation to openness, concentration rates, and real wage costs; and (3) the behavior of sectoral real investments in relation to markups, real wage costs, and the openness indicator.

4.1. Phases of Macroeconomic Adjustment in Turkish Manufacturing

Table 14.11 summarizes the main indicators of the manufacturing industry under the post-1980 adjustments. To document the extent of the oligopolistic structure of the sector, we tabulate the rate of market concentration in the manufacturing industry subsectors by calculating the shares of the four largest enterprises in the total sales (revenues) of the sector (hence the acronym, CR4). Accordingly, we classify

those sectors with CR4 ratios above 30 percent as imperfectly competitive and those having CR4 ratios below this threshold as competitive.[26] Data on other sectoral variables come from the *State Institute of Statistics (SIS) Manufacturing Industry Annual Surveys*. To arrive at "wage rates" and the "average labor product," we have used data on "total wages paid" and "value-added" divided, respectively, by "average number of workers engaged." We have used the sectoral wholesale producer prices in deflating nominal magnitudes.

Table 14.11 Evolution of the Turkish Manufacturing Sector under External Liberalization

	Structural Adjustment Reforms	Outward-Orientation	Unregulated Financial Liberalization	Financial Crisis and Reinvigoration of Short Term Capital-Led Growth
	1980–81	1981–88	1989–93	1994–97
Competitive Sectors				
Value Added/Total Manufacturing	0.45	0.42	0.51	0.48
Employment/Total Manufacturing	0.58	0.59	0.62	0.65
Ratio of Trade Volume to Value Added	0.39	1.04	0.91	1.46
Share of Public Firms in Value Added	0.15	0.13	0.11	0.04
Share of Wages in Value Added	0.33	0.22	0.23	0.19
Annual Rate of Growth of Real Wages (%)	2.77	–1.88	11.62	–7.92
Annual Rate of Growth of Labor Productivity (%)	26.54	8.83	11.69	–2.01
Gross Profit Margins (Mark-up)	0.28	0.33	0.39	0.38

	Structural Adjustment Reforms	Outward-Orientation	Unregulated Financial Liberalization	Financial Crisis and Reinvigoration of Short Term Capital-Led Growth
	1980–81	1981–88	1989–93	1994–97
Noncompetitive Sectors				
Value Added/Total Manufacturing	0.55	0.58	0.49	0.52
Employment/Total Manufacturing	0.42	0.41	0.38	0.35
Ratio of Trade Volume to Value Added	0.67	1.04	0.89	1.59
Share of Public Firms in Value Added	0.62	0.53	0.43	0.42
Share of Wages in Value Added	0.28	0.14	0.21	0.14
Annual Rate of Growth of Real Wages (%)	3.39	–3.15	15.41	–8.28
Annual Rate of Growth of Labor Productivity (%)	83.25	12.71	8.53	3.24
Gross Profit Margins (Mark-up)	0.34	0.46	0.49	0.53

Source: SIS Manufacturing Industry Annual Surveys and Manufacturing Industry Concentration Ratios.

(p.441)

Table 14.12

	Open Sectors	Inward-Looking Sectors
Competitive sectors	312, 322, 381, 383	311, 321, 323, 331, 352, 356, 369
Imperfectly competitive sectors	351, 353, 382, 384, 385, 390	313, 314, 324, 332, 341, 342, 354, 355, 361, 362, 371, 372

The periodization of table 14.11 follows the adjustment path of the overall economy as characterized and discussed in table 14.12, above. Given our criterion of distinguishing individual sectors as competitive versus imperfectly competitive based on their CR4 ratios, we observe that eighteen of the twenty-nine sectors fall under the “imperfectly competitive and oligopolistic” group in 1980. Eight of them have CR4 ratios higher than 50 percent. By 1996, there was very little change in these subgroups. As of 1996, the share of value-added in the imperfectly competitive sectors in the manufacturing total reached 51 percent. Furthermore, these sectors employed 31 percent of total manufacturing employment in our database. In contrast, in 1980, the output share of the imperfectly competitive sectors was 55 percent and their employment share was 42 percent.

At the risk of overgeneralization, we can nevertheless confer a tendency for higher markup rates within the imperfectly competitive block. Petroleum refineries (353), soil products (361), and non-metals (369) have the highest markup rates over 1994–1996 (of 1.07, 1.04, and 0.72, respectively). We further observe that growth in real wages has been consistently negative over the 1981–1988 and 1994–1997 episodes, while real wage costs have been on an upward trend under the financial deregulation of 1989–1993. As of 1994–1997, the highest share of labor costs in value-added (0.27) is recorded in manufacture of footwear (324). This is followed by glass products (362) with 0.25, and paper and paper products (341) with 0.24. The dissociation between real wage movements and labor productivity is clearly visible over the classic export-led manufacturing era from 1981 to 1988. Even though real wages seem to have caught up with real average

labor productivity over 1989–1993, this pattern falls short of its momentum, and by 1994–1997 real wages start a contractionary trend.

4.2. Econometric Investigation

We now redirect our attention to the econometric investigation provided by Metin, Voyvoda, and Yeldan (2001; hereafter, MVY). We focus on the twenty-nine subsectors of manufacturing based on three-digit ISI-Classification (the ISIC codes and their sectoral identification are laid out in appendix 1, table 14.14).

MVY also rely on the initial classification based on the CR4 ratios introduced above. Accordingly, those sectors that have a CR4 in excess of 0.30 are classified as "imperfectly competitive/oligopolistic" and those with a CR4 of less than 0.30 are classified as "perfectly competitive." On a different spectrum, sectors are regarded as "open" provided that their trade volume (measured as imports plus exports) as a ratio of sectoral value-added exceed 0.50. Sectors with trade volume to value-added ratios of less than 0.50 are regarded as "inward-looking." They carry this classification based on the characteristics of the twenty-nine sectors in 1980. We thus obtain the following tabulation (see appendix 1, table 14.13, for identification of the ISIC codes).

MVY utilize two specifications: they first study the distributional issues and analyze the behavior of gross profit margins (markup rates) in relation to trade liberalization, sectoral concentration, and swings in real wage costs. Secondly, they analyze the patterns of accumulation, and study the behavior of sectoral investment (by destination) against the behavior of markup rates, real wage costs, and openness.

The two essential estimating equations are as follows:

$$\begin{aligned} \mathrm{MR}_{\mathrm{it}} &= f(\alpha_i, O_{\mathrm{it}}, \mathrm{CR4}_{\mathrm{it}}, \mathrm{RW}_{\mathrm{it}}) \\ \mathrm{RI}_{\mathrm{it}} &= f(\alpha_i, \mathrm{MR}_{\mathrm{it}}, O_{\mathrm{it}}, \mathrm{RW}_{\mathrm{it}}) \end{aligned}$$

The first implicit function represents the trade orientation and distributional aspects of the manufacturing industry. MR_{it} denotes markup rates, $CR4_{it}$ denotes concentration ratios, O_{it} stands for the "openness" of each sector (ratio of imports plus exports to sectoral value-added), and RW_{it} denotes real wage costs. The second relationship tries to explain the process of capital accumulation using three possible determinants, namely markups, real wage costs, and openness, where RI_{it} is the real investment of each manufacturing **(p.442)** industry sector. The index $\{i = 1, 2, \ldots N\}$ refers to the individual unit, and $\{t = 1, 2, \ldots T\}$ refers to a given time period. The

coefficients α_i (sector-specific composite term) have two components: α_{i1}, a sector specific intercept, and $\alpha_{i2}t$, a sector-specific deterministic growth trend.

The general form of the econometric specifications is assumed to be linear.

For trade orientation and distribution:

$$MR_{it} = \alpha_i + \beta_1 O_{it} + \beta_2 CR4_{it} + \beta_3 RW_{it} (1')$$

For accumulation:

$$RI_{it} = \alpha_i + \beta_1 MR_{it} + \beta_2 O_{it} + \beta_3 RW_{it} (2')$$

MVY employ panel data estimation on specification (1') in six sets of equations. First, they estimate equation (1') for the whole sample, in other words for $i = \{1, 2, \ldots 29\}$ and $t = \{1980, 1981, \ldots 1996\}$. Then, they take each of the identified cells as one individual group exclusively and redo the estimation. Finally, they distinguish those sectors that were "inward-oriented" in 1980, but became "open" by 1996. That is, sectors $i \in \{2 \text{ and } 4\}$ in 1980 and $i \in \{1 \text{ and } 3\}$ in 1996. This leaves them with the following sectors: {311, 314, 321, 323, 324, 331, 332, 341, 352, 355, 356, 362, 371, 372}. These are classified as "trade adjusters."

4.2.1. Distributional Indicators: Behavior of Gross Profit Margins

We start summarizing MVY's econometric investigation with the analysis of the behavior of gross profit margins (markups). Our highly detailed observations of the markups, as portrayed in table 14.11, reflect a general rise in the average profit margins despite the increased openness and the secular rise in wage costs after 1989.

To test these hypotheses, MVY regress markup rates on openness, concentration (CR4 ratios), and (the logarithm of) real wage costs using the panel data. The econometric results reveal the following relationship for the markup equation when all sectors are considered:

$$\underset{(-5.107)}{MR_{it} = \alpha_i} \quad \underset{(6.361)}{-0.004O_{it}} + \underset{(13.108)}{0.181CR4_{it}} + 0.111LogRW_{it}$$

where α_i is the sector-specific term and *t*-ratios are given in the parentheses. For the whole sample, the overall coefficient of openness is estimated to be a mere –0.004. The magnitude, which is found to be statistically significant at the 1 percent level, is nevertheless very small, suggesting that sixteen years of adjustment to foreign integration have not brought about a meaningful change in the market structure of the Turkish manufacturing industry. As such, the speed of adjustment of gross profit margins is revealed to be very slow in spite of import discipline or export penetration, and the technological and institutional barriers to entry seem to persist over the post-1980 reform era.

Concentration rates, however, have a statistically significant and a higher (positive) coefficient of 0.181 at the 1 percent level. Thus, a 1 percent increase in the level of concentration as measured through the CR4 ratio is likely to affect the average profit margin of the sector by +0.18 percent. The a priori expectation that higher concentration levels would be indicative of higher profit margins is confirmed in the aggregate. What is more interesting, however, is that markups do have a positive relationship with respect to real wage costs (with a coefficient of 0.111). These observations suggest that the sector has been characterized by Sraffian dynamics, with the persistence of markups against wage increases. (Also see Boratav, Yeldan, and Köse 2000 and Yentürk and Onaran 1999 for a further assessment of the behavior of markups during the post-1989 wage cycle in Turkish private manufacturing.)

Across the subgroups, we observe that, in general, “open” sectors (as of 1980) have a negative relationship with “openness.” “Inward-looking” (as of 1980) sectors, however, display a positive relationship against the same variable. Most importantly, “trade adjusters” carry a coefficient of +0.026 vis-à-vis openness. Thus, for those sectors that were inward looking in 1980, the process of opening could not have been associated with a competitive squeezing of the cost margins (markups). On the contrary, it seems evident that the inward-looking sectors (as of 1980) have adjusted to the new trade environment by way of increasing their profit margins (with an estimated coefficient of +0.026 vis-à-vis openness). Trade adjusters, as a group, displayed positive coefficients in relation to the concentration indicator (CR4) and the real wage costs. Except for the “inward-looking and imperfectly competitive” group, markups have positive relationship with real wage costs under all groups. Thus, generally speaking, it seems that the manufacturing sectors could have responded to the trade policy shocks and **(p.443)** real wage costs by increasing their profit margins over the post-1980 reform era.

4.2.2. Investment Behavior and Patterns of Accumulation

Now we turn our attention to the analysis of the behavior of sectoral investment in response to openness, markup rates (profitability), and real wage costs by regressing the logarithm of sectoral real investments against $CR4$, MR, and the logarithm of RW. The overall effect of profit margins on manufacturing real investment is quite strong, with an elasticity of 0.548. This suggests the presence of strong accelerationist investment patterns in the sector. Openness, though positive, carries a smaller coefficient—0.035 (yet, it is not found to be statistically significant).

MVY's estimated equation was reported as

$$\underset{}{\text{LogRI}_{it}} = \alpha_i + \underset{(5.956)}{0.548\text{MR}_{it}} + \underset{(1.439)}{0.035O_{it}} + \underset{(15.063)}{0.841\text{LogRW}_{it}}$$

The most interesting result is the estimated positive elasticity of real wages on real investment with a coefficient of +0.841 that is statistically significant at the 1 percent level. In other words, real wages seem to act as an accelerator variable, stimulating real fixed investments in the manufacturing sector, while the effect of openness—as measured by the ratio of trade volume to value-added—has been found to be insignificant. The unorthodox behavior of real wages in

stimulating both gross profit margins and real investments in a positive manner suggests the continued importance of domestic demand factors in the Turkish industrial commodity markets. These results concur with the findings of Yentürk and Onaran (1999) that post-1980 Turkish manufacturing followed a wage-led growth pattern.

5. Distributive Impacts and the Cost Structure of Value-Added

Turkey is known to suffer from one of the most skewed income distributions compared with countries that have the same level of development. This outcome is partly the legacy of prolonged import-substitution growth patterns with excessive quota rents and an oligopolistic industrial and banking structure. Other reasons include the relatively stagnant and overpopulated agriculture sector, which has loose linkages to the domestic industry, high rates of immigration due to both economic and political pressures, and unequal access to education.

With commodity trade liberalization in 1980 and then financial liberalization in 1989, there were renewed orthodox expectations toward more equitable forms of distribution of the national product as import-quota rents would be dissipated, and the domestic production structure would be transformed given the signals of efficiency (world) prices. It was further argued that, as the labor-intensive domestic industries shifted toward export markets, labor would be able to increase its factor remunerations in real terms.

These orthodox prescriptions failed to operate, however, as the economy witnessed sharp shifts in the underlying economic polity with the emergence and administration of new modes of surplus extraction mechanisms throughout the course of “liberalization.” First and foremost, the pro-liberal stance and the integration process of the domestic economy with world markets did not lead to a more competitive environment in the domestic industry. On the contrary, as discussed in section 4.2 above, concentration rates in most of the outward-oriented sectors (such as food processing, cement, glass production, and ceramics) did in fact rise sharply. Furthermore, the financing behavior of corporations did not show significant changes, and the banking sector became increasingly dissociated from credit financing and intermediation, and its focus evolved into the securitization of domestic debt.

More generally, the post-1980 integration process has invigorated new and intensified distributive tensions as the share of non-wage income in national product rose, the marginalization of labor deepened, existing wage inequalities between skilled and unskilled labor intensified, and social safety nets became increasingly inaccessible.

Let us take a closer look at the increased wage gap between the skilled/organized and the unskilled/marginal segments of the labor force. Köse and Yeldan (1998) categorize “informal/marginal” labor as that part of the employed labor force that is not officially registered under any social security coverage and is also not entitled under the “self-employed or employer” status. Based on the *State Institute of Statistics (SIS) Household Labor Survey* data, Köse and Yeldan report that the ratio of marginal labor to total employment in industry increased to 49 percent in 1994 from 41 percent in 1980. This form of employment was very extensive in traditional sectors like food **(p.444)**

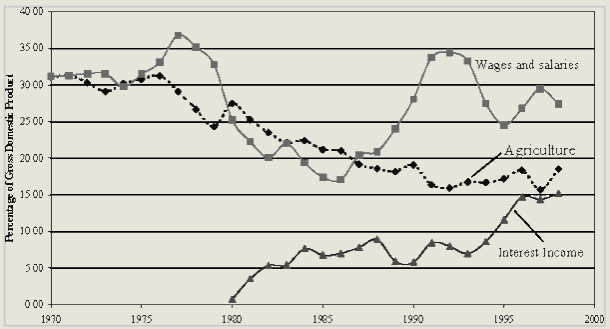

Figure 14.5 Functional Distribution of Income, Turkey: 1970–1998

processing, textiles and clothing, wood and furniture, and metal products, where small-scale enterprises have greater importance. Wage data strongly suggest that the wage gaps between the large/small and public/private enterprises widened significantly and exceeded the wage gap magnitudes of the early 1980s. In particular, the highly organized mining and electricity/gas workers improved their relative economic positions significantly. Wages in the clothing industry compared with manufacturing averages, on the other hand, eroded by 20 percentage points over the post-1980 liberalization period (Köse and Yeldan 1998; Boratav, Yeldan, and Köse 2000; Yentürk 1999).

Given the extent of polarization indicated by these numbers, it is clear that the “traditional” explanations of income inequality (such as unequal access to education, unequal distribution of assets and land concentration, and urban bias) are not

sufficient in explaining the macroeconomic processes that give rise to such an outcome. Even though generalizations can be misleading, one can nevertheless associate rising income inequality and labor marginalization with the informalization of industrial relations, new technological advances that favor skill-intensive production patterns, and an unequivocal trend toward the dissociation of the financial sector from the productive sphere of the economy, coupled with the concomitant expansion of financial rents.

A careful inquiry along these lines will necessitate a shift of focus toward the functional categories of income and the underlying processes of macro adjustment. We turn to these issues in the next section.

5.1. Indicators of the Functional Distribution of Income: The Evidence

Given data constraints, it is common practice to separate agricultural income from non-agricultural income sources. Among non-agricultural activities, we found it possible to distinguish the following entities: interest income, profits, rental income, and public and private wage income.

Figure 14.5 documents the distributional consequences of the post-1980 financial deregulation episode given this breakdown. The share of interest income within aggregate domestic income is observed to stand around 15.2 percent by 1998, reaching almost the total value-added of agriculture—a sector that houses 45 percent of the civilian labor force. The share of interest income was virtually zero in 1980.[27]

Over the long run, the overall decline in agricultural and wage and salary income is phenomenal: the share of agricultural income fell by almost half in the course of the last three decades. The wage cycle, on the other hand, displays a rising trend in the 1970s **(p.445)** and follows a declining course throughout the outward orientation of the domestic economy in the 1980s. The share of non-agricultural wage labor reached its lowest score in 1986 to 17.1 percent from its peak of 36.8 percent realized in 1977. Such an extensive fall clearly reflects the faltering employment response of the domestic industry to significant reductions in real wages. The implication is that the scope for capital-labor substitution has been highly limited in the Turkish economy.

Given this background, it would be illuminating to trace the dynamics of the real earnings of wage labor against (labor) productivity growth over an extended time horizon. In what follows, we decompose variations in the average product of labor and the real wage rate in the Turkish industry to obtain their underlying long-term trends. We make use of the Hodrick-Prescott filtering methods to disintegrate the cyclical variations in productivity growth and wage rates from their respective historical trends. This exercise enables us to isolate the underlying trend paths of the two variables, and to make inferences about the evolution of the wage cycle against the long-term productivity patterns in Turkish industry.

Data for our analysis come from the *Manufacturing Industry Annual Surveys* reported by the State Institute of Statistics. For the "wage rate" series, we have used "total wage earnings" divided by "total workers engaged in production." The average labor product is derived by dividing "total value added" by the same labor employment magnitude. Both series are deflated by the wholesale price index and are filtered in logarithmic form. The exercise covers the time period 1950 to 1996.

The results of the filter are portrayed in figures 14.6 and 14.7. The units on the y-axis are in real 1963 TL prices in log scale. In figure 14.6, we observe the historical trend of the real average labor product in Turkish manufacturing. The trend has a secular upward slope with an average rate of annual growth of 3.8 percent for the whole time horizon (1950–1996). This is in contrast with the trend of the real wage rate portrayed in figure 14.7. The trend in real wages fluctuates with an increasing trend until mid-1970s, a deceleration between 1980 and 1988, and recovery following 1989. The observed recovery in real wage is clearly the end result of the post-1989 populism that enabled sharp increases in real wages between 1989 and 1993 (as narrated in section 3, above). Given this record of events, it seems plausible to argue that the post-1989 upswing in manufacturing real wages was in fact in line with the real average product of labor as far as the long-term trends of the two series are concerned.[28]

(p.446)

Fluctuations of the real wage trend follow the political cycle quite closely (as also shown in section 3, above). The fundamental characteristic of this cycle is that it discloses a relatively weak connection between wage

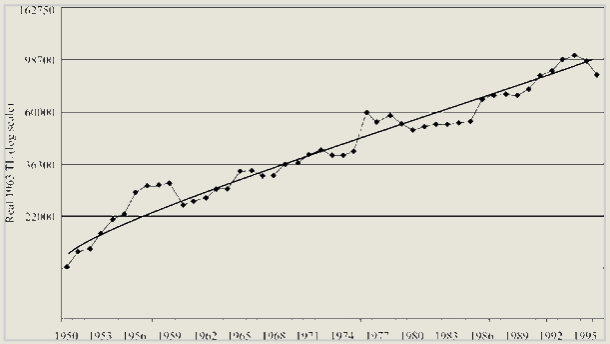

Figure 14.6 Real Average Labor Productivity in Large Private Manufacturing: H-P Filtered Trend

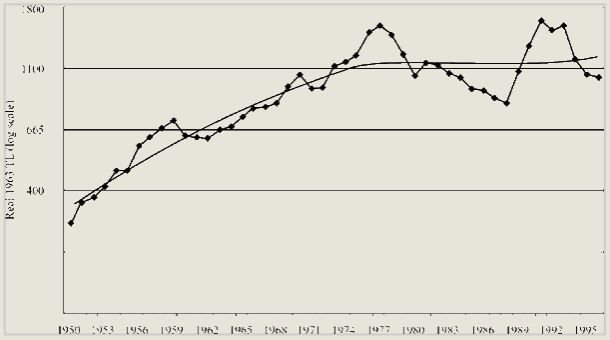

Figure 14.7 Real Wages in Large Private Manufacturing: H-P Filtered Trend

remunerations and labor productivity in manufacturing industries. The trend path of real wages clearly signals a break following 1979–1980. This is the era when the domestic economy underwent significant transformation as it sought integration with global commodity and asset markets. The ongoing wage suppression as manifested by the downswing in the wage cycle indicates that adjustments in the labor markets served as one of the main mechanisms in bringing forth this transformation. Implemented under military rule with severe restrictions against collective bargaining and unionization, cost savings on wage labor were instrumental in the extraction of an economic surplus, which, in turn, was oriented toward export markets via a generous export-subsidization program.

From a different perspective, the sharp contrast between the trend of labor productivity against real wage earnings following the 1980 transformation clearly displays the extent of dissociation between the productive sphere of the domestic

economy from its indigenous processes of accumulation and distribution. As the internationalization of the commodity and financial markets intensified, the links between savings generation and the productive use of such funds in enhancing capital accumulation—the process of intermediation—were severed. With the complete deregulation of the financial sector and the consequent ascendancy of finance over industry, international finance capital—whose singular goal is immediate financial gain rather than long-term economic development and sustainable growth—was able to assume a dominant role in the economy.

5.2. Decomposition of the Structure of Costs

Given aggregate GNP, we can deduce its components in the following manner. Let PY be the nominal GNP, then

$$\mathrm{PY} = \mathrm{iD} + \mathrm{rN} + \Pi + \mathrm{WpLp} + \mathrm{WgLg} + A$$

where iD is interest income generated in the economy; rN is rental costs; Π is aggregate profits; $WpLp$ and $WgLg$ are wage costs in the private and public sectors, respectively; and A is agricultural income.

If we add import costs (in domestic currency), eP^*M, we get this breakdown of the costs of aggregate (nominal) supply:

$$\mathrm{PX} = \mathrm{iD} + \mathrm{rN} + \Pi\mathrm{PX} + \mathrm{WpLp} + \mathrm{WgLg} + A + \mathrm{eP}^{*}M$$

where Π is the share of profits in total output.

(p.447) Let the debt to output ratio be $d = D/PX$, the real import/output ratio be $m = M/X$, and the real exchange rate be $z = eP^*/P$. Denoting $n = N/PX$, $lp = Lp/X$, $lg = Lg/X$, $wp = Wp/P$, $wg = Wg/P$, and $a = A/PX$, we obtain the structural breakdown of the unit costs:

$$1 = \mathrm{id} + \Pi\mathrm{rn} + \mathrm{wplp} + \mathrm{wglg} + a + \mathrm{zm}$$

We provide the relevant data and the associated calculations in table 14.3. The breakdown of unit costs is portrayed in figure 14.8.

Aggregate real GNP is observed to rise at an annual average rate of 4.4 percent over 1990–1998. The expansion of the share of interest is phenomenal. The share of iD increased from 0.049 in 1990 to 0.119 in 1998. This translates into an annual increase of 17.7 percent over the same period. Import costs likewise are about one-fifth of the aggregate cost of production. The rise of import costs comes to an average rate

of increase of 10.4 percent per annum. The share of wage costs in the public sector fluctuated through the 1990s. From as low as 0.077 in 1988, public sector wage labor succeeded in raising its share up to 0.166 in 1992, but began a rapid decline falling to 0.096 in 1996. Private sector wage cost is observed to be more stable, and its share hovers around 0.10–0.12. Profits are another fairly stable entity in the cost structure, capturing about a third of unit costs. A decline in the making is visible after 1995, however, as interest servicing costs expand their share at the expense of non-agricultural, non-wage factorial incomes.

6. Conclusion

In this chapter we have tried to identify and study the main stylized facts and processes characterizing the dynamic macroeconomic adjustments in Turkey since the inception of its post-1980s globalizing reforms. The Turkish adjustment experience reveals the process by which a developing market economy is trapped by the demands of integration with world markets and the distributional requirements warranted by such reorientation. The state apparatus became the bastion of privilege regulating the mode of income redistribution within society. The elements of this redistribution involved both direct mechanisms of attaining favorable production and export subsidies, currency depreciation, and wage suppression, as well as indirect mechanisms such as tax evasion on capital incomes and a financial market development strategy that enabled massive income transfers to the rentier class.

(p.448) Our

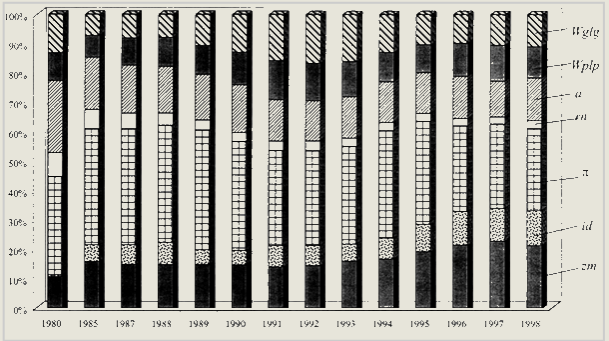

Figure 14.8 Decomposition of the Structure of Costs

decompositions of the components of aggregate demand reveal that the increased financial demands of the public sector dominate much of the process. Yet government

expenditures, swamped as they are by interest servicing costs on domestic demand, do not provide a sustained impetus to the rest of the economy. Furthermore, operating under a regime of open capital markets, the economy is trapped in a vicious circle of high real interest rates, an overvalued domestic currency, and increased volatility in the flows of speculative short-term foreign capital.

Existing data reveal very little structural change in the sectoral composition, market concentration, and behavior of profit margins under the post-1980 Turkish structural adjustment reforms and outward orientation. It is also notable that the sectors that are characterized by high concentration coefficients do not necessarily reflect high shares of public ownership, and that reductions in the share of public companies do not directly lead to an increase in the degree of competitiveness. As such, the change in market concentration is revealed to be very slow in spite of the import discipline or export penetration; and the technological and institutional barriers to entry persist over the post-1980 reform era.

These results suggest the continued importance of domestic demand in the Turkish industrial commodity markets and an overall wage-led growth pattern with both profit margins and real wages acting as accelerationist variables to stimulate fixed investments.

Appendix 1: Capital Movements: Definitions, Data, and Method

The IMF, in its *Balance of Payments Manual, 1993* (5th edition), made a number of changes in the conceptual framework of the capital and financial account of balance of payments (BoP) statistics. As a result, capital movements emanating from residents or non-residents, from non-official (i.e., banks and “other sectors”) and official (i.e., general government and monetary authorities) agents, can be distinguished, together with the types of assets and liabilities that constitute the content of capital movements. The quantitative analysis of capital flows in general and “hot money” (i.e., arbitrage-seeking, short-term private capital), in particular, as presented in tables 14.3–7, are based on this improved conceptual framework adopted by Turkish BoP statistics as well.

A Decomposition Based on the Balance of Payments Identity

Let us denote net capital flows emanating from non-residents by *NKF(nr)*, from residents by *NKF(r)*, net errors and omissions by *EO*, reserve movements as *DR*, and the current account balance as *CA*. The well-known balance of payments (BoP) identity is expressed as follows:

$$\mathrm{NKF(nr)} + \mathrm{NKF}(r) + \mathrm{EO} + \mathrm{DR} + \mathrm{CA} = 0 \quad (1)$$

For a typical developing economy, the usual signs observed during "normal periods" are (+) for *NKF(nr)* and (−) for the other terms. This means that residents engage in net recorded capital outflows; errors and omissions are interpreted as reflecting residents' unrecorded capital movements, and the net outcome is capital flight; reserves tend to increase; and the current account chronically generates a deficit. These are not rigid generalizations: in individual years, there may occur net repatriation of non-residents' assets (i.e., $NKF(nr) \rightarrow 0$); residents may engage in net repatriation of their external assets or reverse capital flight may occur (i.e., $NKF(r) \rightarrow 0$ and $EO \rightarrow 0$); and reserves may decline, or the current account may generate a surplus (i.e., $DR \rightarrow 0$ and $CA \rightarrow 0$). However, empirical findings for developing countries as a whole or for the subgroup of "emerging markets" have shown that cumulative sums of each of the above categories have generated the "usual" signs for a few years or for the full financial cycle.[29] This observation enables us to reformulate the decomposition of nonresidents' inflows. Let us first reformulate equation (1) as follows:

$$\mathrm{NKF(nr)} = -[\mathrm{NKF}(r) + \mathrm{EO} + \mathrm{DR} + \mathrm{CA}] \quad (1a)$$

Since the terms in the right-hand side (RHS) of the equation usually have negative signs, let us reverse the signs and rename the terms: *–NKF(r)* becomes net capital outflows by residents, denoted by *NKO(r); –EO* becomes capital flight by residents denoted by *KFL; –DR* becomes reserve accumulation, denoted by *RAC;* and *–CA* becomes current account deficit, denoted as *CD.* It would be helpful if we also rename *NKF(nr)* without any change of sign as net capital inflows by non-residents, denoted as *NKI(nr)*. Hence, with the signs reversed in the RHS and the terms renamed, equation (1a) is transformed into the following decomposition: **(p.449)**

Table 14.13 Manufacturing Industry Labor Productivity Decomposition 1981–1996

	Sectoral Labor Productivity Growth Rate	Sectoral Output Share	Sectoral Employment Share	Real Output Growth Rate (g_i)	Employment Growth Rate (n_i)	Net Productivity	Productivity by Reallocation of Labor	Reallocation Weight
Food Manufacturing	1.314	0.104	0.147	1.704	0.168	0.160	–0.035	–0.206
Beverage Industries	0.794	0.029	0.014	0.712	–0.046	0.022	0.000	–0.002
Tobacco Manufactures	3.007	0.042	0.058	0.939	–0.516	0.061	0.042	–0.081
Manufacture of Textiles	1.142	0.112	0.209	1.851	0.331	0.170	–0.109	–0.330
Manufacture of Wearing Apparel	1.690	0.013	0.031	13.026	4.214	0.117	–0.217	–0.052
Manufacture of Wood and Cork Products	1.607	0.007	0.016	1.529	–0.030	0.010	0.001	–0.027

	Sectoral Labor Productivity Growth Rate	Sectoral Output Share	Sectoral Employment Share	Real Output Growth Rate (g_i)	Employment Growth Rate (n_i)	Net Productivity	Productivity by Reallocation of Labor	Reallocation Weight
Manufacture of Furniture and Fixtures	5.460	0.002	0.005	17.639	1.885	0.038	–0.014	–0.007
Manufacture of Paper Products	1.904	0.014	0.023	1.997	0.032	0.027	–0.001	–0.035
Printing, Publishing, and Allied Industries	2.074	0.011	0.013	3.743	0.543	0.035	–0.009	–0.017
Manufacture of Basic Industrial Chemicals	1.964	0.078	0.055	2.545	0.196	0.183	–0.008	–0.039
Petroleum Refineries and Petroleum Derivatives	0.546	0.271	0.013	0.466	–0.052	0.140	–0.013	0.243

	Sectoral Labor Productivity Growth Rate	Sectoral Output Share	Sectoral Employment Share	Real Output Growth Rate (g_i)	Employment Growth Rate (n_i)	Net Productivity	Productivity by Reallocation of Labor	Reallocation Weight
Manufacture of Rubber Products	1.612	0.015	0.013	2.025	0.158	0.028	–0.002	–0.014
Manufacture of Nonmetallic Mineral Products	1.370	0.066	0.074	1.705	0.141	0.103	–0.013	–0.091
Basic Metal Industries	1.182	0.075	0.093	0.687	–0.227	0.069	0.028	–0.122
Manufacture of Fabricated Metal Products	1.524	0.029	0.049	2.070	0.216	0.054	–0.016	–0.074
Manufacture of Machinery	1.810	0.042	0.062	1.784	–0.009	0.076	0.001	–0.088
Manufacture of Electrical Machinery Apparatus	1.804	0.034	0.039	3.043	0.442	0.089	–0.021	–0.048

	Sectoral Labor Productivity Growth Rate	Sectoral Output Share	Sectoral Employment Share	Real Output Growth Rate (g_i)	Employment Growth Rate (n_i)	Net Productivity	Productivity by Reallocation of Labor	Reallocation Weight
Manufacture of Transportation Equipment	2.162	0.044	0.062	3.456	0.409	0.133	–0.036	–0.087
Other Manufacturing Industries	2.382	0.012	0.023	5.436	0.903	0.053	–0.033	–0.037

(p.450)

$$NKI(nr) = NKO(r) + KFL + RAC + CD \quad (2)$$

The interpretation of the decomposition (2) is as follows: a typical capital-scarce developing country chronically generates current deficits in its external accounts. These deficits as well as additional foreign exchange demands due to residents' (recorded and unrecorded) capital outflows and reserve accumulation can, in the medium run, only be "financed" through net inflows from non-residents. Hence, net inflows from external agents, that is, *NKI(nr),* are allocated to finance both the "leakages," or "drains," that is, *(NKO(r) + KFL + RAC)* and *CD*. Transitionally, some of the terms in the RHS of equation (2) may take negative signs and appropriate interpretations follow. Residents may repatriate their external assets in net terms. Reserve depletion and current surpluses may occur whereby the relevant terms are expressed as negative terms on the RHS. However, the decomposition logic loses its significance when the sum total of the RHS terms, and consequently, *NKI(nr)* is negative—a phenomenon that can be expected to occur only exceptionally (under serious financial crisis) in a developing country, for example Turkey in 1994, Mexico in 1995, or East Asia in 1997–1998.

It will be noticed that table 14.2 has used the conventional signs of the BoP accounts as expressed in equation 1 rather than the decomposition terminology of equation 2. However, in reading and interpreting table 14.2, it will be helpful to keep the decomposition logic in mind. Hence, the negative values of the ratios in the last four columns of table 14.2, can (after mentally reversing the signs) be read as the shares of the current deficit and the relevant "leakage" items out of non-residents' net capital inflows.

Arbitrage-Seeking, Short-Term, Private Capital ("Hot Money") Movements

Short-term private capital flows, with the exception of trade credits, can be considered as constituting a broad definition of hot money movements engaged by banks, institutional and private rentiers, and firms. Within the new framework of BoP statistics, this broad category may be disaggregated into the following items:

Zero values for some of the items do not necessarily imply the absence of the relevant transborder transaction. Improved recording also results in the change from zero values into

positive or negative figures. For example, it is known that non-residents have been purchasing and selling Turkish treasury bills, but they have not as yet been recorded within the correct item (i.e., 4680). The relevant figures are registered elsewhere in the capital account, for

Table 14.14 "Hot Money" Items within the Framework of Standard Balance of Payments Statistics

Heading	IMF Code for Non-resident Flows	IMF Code for Resident Flows	Note
Portfolio Investment			
Equity securities	4660 (8) (–518)	4610 (–50) (171)	Investment in equities
Money market instruments	4680 (0) (0)	4630 (0) (0)	Investment in government paper
Other Investment			
Short-term loans to banks	4774 (724) (63)	4724 (–134) (–75)	Bank to bank loans
Short-term loans to other sectors	4777 (586) (419)	4727 (0) (0)	Other sectors = firms and households
Deposit and currency: banks	4783 (–152) (2,303)	4733 (–678) (–752)	
Deposit and currency: other sectors	4784 (0) (0)	4734 (0) (0)	Other sectors = firms and households
Other liabilities and assets: banks	4795 (0) (0)	4745 (0) (0)	

Heading	IMF Code for Non-resident Flows	IMF Code for Resident Flows	Note
Other liabilities and assets: other sectors	4798 (0) (0)	4748 (–676) (–427)	Other sectors = firms and households
Net errors and omissions	—	4998 (–2,594) (–2,203)	Residents' non-recorded flows

Note: Figures in parentheses are Turkey's 1997 and 1998 values in million dollars for the relevant item.

(p.451) example within 4783 and/or as another unrecorded quantity within the EO item. (Note that Mexican BoP data show zero values for the 4680 item up till the end of 1993, but register negative values for the following two years [–1.9 and –13.8 billion dollars in 1994 and 1995 respectively] and positive values thereafter. Negative values for the 4680 item in 1993–1994 signify the sale of Mexican government debt papers by non-residents; the earlier purchase of which should have been recorded as positive [instead of zero] values for the same item in the preceding years. Once again, earlier inflows have, evidently, been recorded elsewhere.)

These observations suggest that it is too early to treat individual items of the capital and financial accounts of the BoP statistics in Turkey (and elsewhere) as reliable and undertake a quantitative analysis based on these specific variables. However, the sum total of "hot money" flows emanating from non-residents' as well as residents' "hot" capital movements are, essentially, reliable magnitudes. In other words, the distinction between residents and non-residents in transborder transactions is much more reliable than the specific item in which the specific quantity is recorded. This is the reason for distinguishing "hot money" figures only between residents and non-residents in table 14.3 without going into the individual items behind the two totals.

Notes

(1.) This observation holds despite the overall continuity of the neoliberal regime with the program of economic liberalization

and market-led adjustment put into full force during the early 1980s by the military government and its civilian successors.

(2.) See Yeldan (1995, 1998) for a discussion on the characteristics of the post-1989 Turkish macro adjustments in terms of the creation and absorption of the economic surplus and a quantitative analysis of the strategic role played by the state apparatus. Önis and Aysan (2000); Cizre-Sakallioğlu and Yeldan (2000); Boratav, Türel, and Yeldan (1996); Ekinci (1998); and Boratav, Yeldan, and Köse (2000) provide similar analyses based on the effects of international speculative financial capital flows on the Turkish economy.

(3.) Yeldan (2001a), Boratav and Türel (1993), Şenses (1994), Uygur (1993), and Celasun (1994) provide a thorough overview of the post-1980 Turkish structural adjustment reforms.

(4.) Anti-labor legislation from the early 1980s was effectively utilized by Özal's government up till the late 1980s.

(5.) See Yeldan (2001a); Ertugrul and Selcuk (2001); Cizre-Sakallioğlu and Yeldan (2000); Balkan and Yeldan (2001, 1998); Selçuk (1997); Boratav, Türel, and Yeldan (1996); Ekinci (1998); and Yentürk (1999) for an extensive discussion of the post-financial liberalization macroeconomic adjustments in Turkey. Metin, Voyvoda, and Yeldan (2001b) study the stylized facts of the macro adjustments using detrending techniques of the business-cycles literature.

(6.) See appendix 1 of this chapter on definitions, data, and method related to the presentations in tables 14.4–6.

(7.) The contrast with the boom year of 2000 (when a 6.1 percent GNP growth generated current deficits equal to 4.9 percent of GNP) suggests that complacency on this issue may be premature (see note 8, below).

(8.) See section 2.2.4 and table 14.7.

(9.) There was also a significant amount of financial investment by households in the so-called super T-bills (that offered 400 percent interest rates with a three-month maturity) financed by switching from unrecorded forex holdings. Although such currency switching from unrecorded to recorded assets may not incorporate cross-border capital

movements, it is reflected as positive values in the “net errors and omissions” item that, in the methodology followed in this paper, are considered as reverse capital flight by residents.

(10.) Savings deposits were insured at 100 percent since the 1994 crisis. Additionally, a scandalous provision imposed by the IMF during the negotiations for the additional standby agreement in December 2000 extended the guarantee to bankrupt banks’ external debts. Hence, international banks’ bad loans to Turkish banks are henceforth guaranteed and to be covered by the Turkish exchequer. The “moral hazard” dimension of this provision goes without saying, and there is no estimate on the magnitude involved.

(11.) During the first eleven months of 2000, exports remained practically unchanged but imports rose by 37 percent, more than doubling the trade deficit to 25 billion dollars. The adverse effects of the 1994 Customs Union treaty with the EU on the trade balance were delayed because of the substantial devaluation that same year, whose protective effects continued to prevail during the following five years of mild appreciation. These favorable conditions were reversed in 2000 not only because of the faster rate of appreciation of the Turkish lira vis-à-vis the currency basket but also because of the depreciation of the euro vis-à-vis the dollar.

(12.) Yet the realized external disequilibria should have come as no surprise to the IMF. Past experience of all exchange rate–based stabilization programs show that they initially generate a demand-based expansion accompanied by rising and usually unsustainable trade and current deficits, followed by a contractionary phase—the magnitude of which depends on the size of the earlier external deficits. An overview of such exchange rate–based disinflation and stabilization is summarized in Calvo (2001); Calvo and Vegh (1999); Calvo, Reinhart, and Vegh (1995); Amadeo (1996); Agenor (2000); Akyuz and Cornforth (1999); Diaz-Alejandro (1985); Kaminsky and Reinhart (1999); Frenkel (1995); and Agenor and Montiel (1999, ch. 8). For individual country experiences, see Corbo (1985), on Chile; Patinkin (1993) and Bruno (1993) on Israel; and Frenkel and Fanelli (1998) on Argentina. The IMF itself had access to a series of interim reports and staff papers documenting such possible effects on the financial market. See, for example, Kaminsky, Lizondo, and Reinhart (1998).

(13.) There were, without doubt, additional complications. The number of banks transferred to the Savings Deposit Insurance Fund kept increasing throughout 2000. Most of their owners faced criminal charges and were arrested. The shock and apprehension of the financial community was aggravated when the newly established Board of Banking Supervision and Regulation called on the banks to reduce the open positions between their foreign exchange liabilities and assets to the pre-set limits by the end of the year. This resulted in additional foreign exchange demand.

(14.) The weighted average of interest rates on 2000 auctions, that is, 36 percent deflated by 20 percent (i.e., the change in the nominal exchange rate).

(15.) $8.1 billion in IMF credits between November 2000 and June 2001 financed part of the reserve depletion of $15.2 billion.

(16.) Elements of this vicious cycle are further studied in Kaminsky and Reinhart (1999); Adelman and Yeldan (2000); Diaz-Alejandro (1985); and are more recently referred to as the Neftci-Frenkel cycle in Frenkel 1998.

(17.) This interpretation is shared by many researchers. Unrecorded current account operations, for example smuggling as well as foreign exchange movements in and out of the formal sector, without any cross-border transactions taking place are also reflected in the EO item. The latter interpretation appears to be more valid for Africa.

(18.) The sixteen countries covered are Argentina, Brazil, Chile, Colombia, Egypt, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, South Africa, South Korea, Thailand, and Turkey.

(19.) UNCTAD (1999), 110–11.

(20.) The differential between the rate at which reserves are borrowed and the return on the international assets at which they are invested represents the net loss on reserve accumulation. This resembles the case of a head of household in a developing country who borrows from the bank and then puts the borrowed money in a deposit account at the same bank. These two transactions that generate a net loss to the household may appear totally absurd and irrational; but in fact, have a logic of their own if the deposit account is used to "gain respectability" from the consular office of, say, Australia, to which he has applied for a visa.

(21.) UNCTAD (1999), 108.

(22.) The only non-hot capital movement that was affected by the 1989 liberalization was, probably, the FDI abroad of residents.

(23.) Note that period coverage for recent hot money movements in tables 14.7 and 14.7b are different: the former (row 9) covers the first three quarters of 2001, whereas the latter incorporates the last two months of 2000 additionally.

(24.) See, for example, Boratav, Yeldan, and Köse (2000); Onaran (2000); Yeldan and Köse (1999); Filiztekin (1999); Ercan (1999); Pamukçu and de Boer (1999); Köse and Yeldan (1998); Yentürk (1997, 1999); Uygur (1996); Kepenek (1996); Şenses (1996); Bulutay (1995); and Maraşlioğlu and Tiktik (1991).

(25.) See, for instance, Metin, Voyvoda, and Yeldan (2001a); Güneş (1996); Kaytaz, Altin, and Güneş (1993); Katircioğlu (1990); and Şahinkaya (1993) for the evaluation of market concentration and patterns of oligopolistic markup pricing in the industrial commodity markets. Güneş, Köse, and Yeldan (1996), in turn, document comprehensive panel data on the degree of concentration in Turkish manufacturing using the standard Input-Output classification for the period 1985–1993.

(26.) This is the threshold used by Boratav, Yeldan, and Köse (2000) and Yeldan and Köse (1999), where, on a further level of finesse, the sectors that had CR4 ratios between 30 and 49 percent are classified as "monopolistically competitive," and

sectors with CR4 ratios exceeding 50 percent are regarded as “oligopolistic.”

(27.) All income data are inclusive of taxes and are in gross terms.

(28.) See Boratav for a narrative support of this claim.

(29.) See UNCTAD 1999, table 5.2. Consolidated African data for 1980–1998 generate the same signs except for the EO item, which tends to be positive (UNCTAD 2000, table 3).

References

Bibliography references:

Adelman, Irma, and Erinç Yeldan. 2000. The minimal conditions for a financial crisis: A multiregional intertemporal CGE model of the Asian crisis. *World Development* 28 (6): 1087–100.

(p.453) Agenor, Pierre-Richard. 2000. *The economics of adjustment and growth*. London: Academic Press.

Agenor, Pierre-Richard, and Peter Montiel. 1999. *Development macroeconomics*. Princeton, N.J.: Princeton University Press.

Akyüz, Yilmaz. 1990. Financial system and policies in Turkey in the 1980's. In *The Political Economy of Turkey,* edited by T. Aricanli and D. Rodrik. London and New York: Macmillan.

Akyüz, Yilmaz, and Anthony Cornford. 1999. Capital flows to developing countries and the reform of the international financial system. UNCTAD Discussion Paper, no. 143. Geneva: UNCTAD.

Amadeo, E. J. 1996. The knife-edge of exchange rate based stabilization impacts on growth, employment and wages. In *UNCTAD Review,* no. 1. Geneva: UNCTAD.

Balkan, E., and E. Yeldan. 1998. Financial liberalization in developing countries: The Turkish experience. In *Financial liberalization in developing countries,* edited by R. Medhora and J. Fanelli. London, New York: Macmillan.

———. 2002. Peripheral development under financial liberalization: The Turkish experience. In *The ravages of neo-liberalism: Economy, society and gender in Turkey,* edited by N. Balkan and S. Savran. Hauppauge, N.Y.: Nova Science.

Berg, J., and L. Taylor. 2001. External liberalization and policy implications. In *External liberalization, economic performance, and social policy,* edited by L. Taylor. London: Oxford University Press.

Boratav, K., and O. Türel. 1993. Turkey. In *The rocky road to reform,* edited by L. Taylor. Cambridge, Mass.: MIT Press.

Boratav, K., O. Türel, and E. Yeldan. 1996. Dilemmas of structural adjustment and environmental policies under instability: Post-1980 Turkey. *World Development* 24 (2): 373–93.

Boratav, K., E. Yeldan, and A. Köse. 2000. Globalization, distribution and social policy: Turkey (1980–1998). CEPA Working Paper Series, no. 20, February. New York: Center for Economic Policy Analysis, New School University.

Bruno, M. 1993. *Crisis, stabilization and economic reform: Therapy by consensus.* London: Oxford University Press.

Bulutay, T. 1995. *Employment, unemployment and wages in Turkey.* Ankara: ILO/SIS.

Calvo, G. 2001. The economics of sudden stop. Mimeo. University of Maryland.

Calvo, G., L. Leiderman, and C. M. Reinhart. 1996. Inflows of capital to developing countries in the 1990s. *Journal of Economic Perspectives* 10: 123–39.

Calvo, G., and C. A. Vegh. 1999. Inflation stabilization and BOP crises in developing countries. In *Handbook of Macroeconomics,* edited by J. Taylor and M. Woodford, 1531–614. Amsterdam: North-Holland Press.

Cizre-Sakallioğlu, Ü., and E. Yeldan. 2000. Politics, society and financial liberalization: Turkey in the 1990s. *Development and Change* 31 (1): 481–508.

Corbo, V., and L. Hernandez. 1996. Macroeconomic adjustment to capital inflows: Lessons from recent Latin American and East Asian experience. *The World Bank Research Observer* 11 (1): 61–85.

Diaz-Alejandro, C. F. 1985. Good-bye financial repression, hello financial crash. *Journal of Development Economics* 19: 1–24.

Ekinci, N. 1998. Dynamics of growth and crisis in the Turkish economy (in Turkish). *Toplum ve Bilim* (77): 7–27.

Ercan, Hakan. 1999. Non-wage labor cost in Turkish manufacturing industry: An international comparison. In *The burdens related with Turkish labor markets and policies,* edited by T. Bulutay. Ankara: State Institute of Statistics.

Ertugrul, A., and F. Selcuk. 2001. A brief history of the Turkish economy, 1990–2000. *Journal of East European and Russian Trade*.

Filiztekin, A. 1999. Growth and dynamics of productivity in Turkish manufacturing. Mimeo. Istanbul: Koc University, Department of Economics.

Frenkel, Roberto. 1995. Macroeconomic sustainability and development prospects: Latin American performance in the 1990s. UNCTAD Discussion Papers, no. 100, August. Geneva: UNCTAD.

———. 1998. Capital market liberalization and economic performance in Latin America. CEPA Working Paper Series III, no. 1, May. New York: Center for Policy Analysis, New School University.

Frenkel, Roberto, and Jose M. Fanelli. 1998. Argentinian economy in the 1990s. In *Financial Liberalization in Developing Countries,* edited by R. Medhora and J. Fanelli. London: Macmillan Press.

Godley, W. 1999. Seven unstable processes: Medium-term prospects and policies for the United States and the world. Special Report, The Jerome Levy Economics Institute. Annandale-on-Hudson, N.Y.: Bard College. http://www.levy.org.

Kaminsky, G., S. Lizondo and C. Reinhart. 1998. Leading indicators of currency crises. *IMF Staff Papers* 45 (March): 1–48.

Kaminsky, G., and C. Reinhart. 1999. The twin crises: The causes of banking and balance-of-payments problems. *American Economic Review* 89 (3): 473–500.

(p.454) Katircioğlu, E. 1990. *Concentration in Turkish manufacturing and the factors determining concentration: 1975–1988* (in Turkish). Istanbul: TÜSES.

Kaytaz, E., S. Altin, and M. Güneş. 1993. Concentration in Turkish manufacturing industry (in Turkish). *TMMOB Proceedings of the Congress on Industry,* vol. 1. Ankara: Chamber of Engineers.

Kepenek, Y. 1996. Data on the Turkish labor markets from the view point of its users (in Turkish). *METU Studies In Development* 23 (1): 35–57.

Khakimzhanov, S., and E. Yeldan. 2000. Why are the interest rates so high in Turkey? Paper presented at the METU Conference on Economics, Ankara, September 14–17.

Köse, A., and E. Yeldan. 1998. Turkish economy in 1990s: An assessment of fiscal policies, labor markets and foreign trade. *New Perspectives on Turkey* (18).

Maraşlioğlu, H., and A. Tiktik. 1991. Sectoral developments in the Turkish economy: Production, capital accumulation, and employment: 1968–1988 (in Turkish). Mimeo. Ankara: State Planning Organization.

Metin-Özcan, K., E. Voyvoda, and E. Yeldan. 2001a. On the patterns of trade liberalization: Oligopolistic concentration and profitability: Reflections from post-1980 Turkish manufacturing. *Russian and East European Journal of Finance and Trade*.

———. 2001b. Dynamics of macroeconomic adjustment in a globalized developing economy: Growth, accumulation and distribution, Turkey 1969–1998. *Canadian Journal of Development Studies* 22 (1): 217–53.

Milanovic, B. 1986. Export incentives and Turkish manufactured exports: 1980–1984. World Bank Staff Working Paper, no. 602. Washington, D.C.: World Bank.

Neftçi, S. 1998. FX short positions, balance sheets, and financial turbulence: An interpretation of the Asian financial crisis. CEPA Working Paper, Series III, no. 4, June. New York: Center for Policy Analysis, New School University.

Onaran, Ö. 2000. Labor market flexibility during structural adjustment in Turkey. Istanbul Technical University Discussion Papers in Management Engineering, no. 00/1, January. Istanbul: Istanbul Technical University.

Önis, Z., and A. Aysan. 2000. Neoliberal globalization, the nation-state and financial crises in the semi-periphery: A comparative analysis. *Third World Quarterly* 29 (1): 119–39.

Pamukcu, T., and Paul de Boer. 1999. Technological change and Industrialization: An Implication of structural decomposition analysis to the Turkish economy (1968–1990). *Ekonomik Yaklasim* 10 (32): 5–30.

Patinkin, Don. 1993. Israel's stabilization program of 1985, or simple truths of monetary theory. *Journal of Economic Perspectives* 7 (2): 103–28.

Şahinkaya, S. 1993. Sectoral labor productivity, real wages, and gross profit margins or mark-up rates in manufacturing industry (Turkey 1963–1988) (in Turkish). *Toplum ve Ekonomi* (4).

Selçuk, F. 1997. Consumption smoothing and current account: Turkish experience, 1987–1995.” *METU Studies in Development* 24 (4): 519–30.

Şenses, F. 1994. The stabilization and structural adjustment program and the process of Turkish industrialization: Main policies and their impact. In *Recent industrialization experience of Turkey in a global context,* edited by F. Şenses. Westport, Conn.: Greenwood Press.

———. 1996. Structural adjustment policies and employment in Turkey. Economic Research Center Working Paper, no. 96/01. Ankara: Middle East Technical University.

Uygur, E. 1993. *Financial liberalization and economic performance of Turkey*. Ankara: Central Bank of Turkey.

———. 1996. Export policies and export performance: The case of Turkey. Mimeo. Ankara: Ankara University, Faculty of Political Science.

Voyvoda, E., and E. Yeldan. 2001. Patterns of productivity growth and the wage cycle in Turkish manufacturing. *International Review of Applied Economics* 15 (4): 375–96.

Yalçin, C. 2000. Price-cost margins and trade liberalization in Turkish manufacturing industry: A panel data analysis. Mimeo. Central Bank of the Republic of Turkey, Research Department, March.

Yeldan, E. 1995. Surplus creation and extraction under structural adjustment: Turkey, 1980–1992. *Review of Radical Political Economics* 27 (2): 38–72.

———. 2001a. *Küreselleşme Sürecinde Türkiye Ekonomisi: Bölüşüm, Birikim Büyüme*. Istanbul: Iletişim Publications.

———. 2001b. Türkiye Ekonomisinde Krizin Yapisal Dayanaklari Ya Da Kriz Sürecini Bölüşüm Eksenine Oturtmak Üzerine Temel Değerlendirmeler. *Birikim* (April): 12–25.

Yeldan, E., and A. Köse. 1999. An assessment of the Turkish labor market against its macroeconomics policies. In *The burdens related with Turkish labor markets and policies,* edited by T. Bulutay. Ankara: State Institute of Statistics.

(p.455) Yentürk, N. 1997. *"Türk Imalat Sanayiinde Ücretler," Istihdam ve Birikim*. Istanbul: Friedrich Ebert Stiftung.

———. 1999. Short term capital inflows and their impact on macroeconomic structure: Turkey in the 1990s. *The Developing Economies* 37 (1): 89–113.

Yentürk, N., and Ö. Onaran. 1999. Do wages stimulate investments? An analysis of the relationship between wages and investments in the Turkish manufacturing industry. Istanbul Technical University Discussion Papers in Management Engineering, no. 99/11, December.

Notes:

(1.) This observation holds despite the overall continuity of the neoliberal regime with the program of economic liberalization and market-led adjustment put into full force during the early 1980s by the military government and its civilian successors.

(2.) See Yeldan (1995, 1998) for a discussion on the characteristics of the post-1989 Turkish macro adjustments in terms of the creation and absorption of the economic surplus and a quantitative analysis of the strategic role played by the state apparatus. Önis and Aysan (2000); Cizre-Sakallioğlu and Yeldan (2000); Boratav, Türel, and Yeldan (1996); Ekinci (1998); and Boratav, Yeldan, and Köse (2000) provide similar analyses based on the effects of international speculative financial capital flows on the Turkish economy.

(3.) Yeldan (2001a), Boratav and Türel (1993), Şenses (1994), Uygur (1993), and Celasun (1994) provide a thorough overview of the post-1980 Turkish structural adjustment reforms.

(4.) Anti-labor legislation from the early 1980s was effectively utilized by Özal's government up till the late 1980s.

(5.) See Yeldan (2001a); Ertugrul and Selcuk (2001); Cizre-Sakallioğlu and Yeldan (2000); Balkan and Yeldan (2001, 1998); Selçuk (1997); Boratav, Türel, and Yeldan (1996); Ekinci (1998); and Yentürk (1999) for an extensive discussion of the post-financial liberalization macroeconomic adjustments in Turkey. Metin, Voyvoda, and Yeldan (2001b) study the stylized facts of the macro adjustments using detrending techniques of the business-cycles literature.

(6.) See appendix 1 of this chapter on definitions, data, and method related to the presentations in tables 14.4–6.

(7.) The contrast with the boom year of 2000 (when a 6.1 percent GNP growth generated current deficits equal to 4.9 percent of GNP) suggests that complacency on this issue may be premature (see note 8, below).

(8.) See section 2.2.4 and table 14.7.

(9.) There was also a significant amount of financial investment by households in the so-called super T-bills (that offered 400 percent interest rates with a three-month maturity) financed by switching from unrecorded forex

holdings. Although such currency switching from unrecorded to recorded assets may not incorporate cross-border capital movements, it is reflected as positive values in the “net errors and omissions” item that, in the methodology followed in this paper, are considered as reverse capital flight by residents.

(10.) Savings deposits were insured at 100 percent since the 1994 crisis. Additionally, a scandalous provision imposed by the IMF during the negotiations for the additional standby agreement in December 2000 extended the guarantee to bankrupt banks’ external debts. Hence, international banks’ bad loans to Turkish banks are henceforth guaranteed and to be covered by the Turkish exchequer. The “moral hazard” dimension of this provision goes without saying, and there is no estimate on the magnitude involved.

(11.) During the first eleven months of 2000, exports remained practically unchanged but imports rose by 37 percent, more than doubling the trade deficit to 25 billion dollars. The adverse effects of the 1994 Customs Union treaty with the EU on the trade balance were delayed because of the substantial devaluation that same year, whose protective effects continued to prevail during the following five years of mild appreciation. These favorable conditions were reversed in 2000 not only because of the faster rate of appreciation of the Turkish lira vis-à-vis the currency basket but also because of the depreciation of the euro vis-à-vis the dollar.

(12.) Yet the realized external disequilibria should have come as no surprise to the IMF. Past experience of all exchange rate–based stabilization programs show that they initially generate a demand-based expansion accompanied by rising and usually unsustainable trade and current deficits, followed by a contractionary phase—the magnitude of which depends on the size of the earlier external deficits. An overview of such exchange rate–based disinflation and stabilization is summarized in Calvo (2001); Calvo and Vegh (1999); Calvo, Reinhart, and Vegh (1995); Amadeo (1996); Agenor (2000); Akyuz and Cornforth (1999); Diaz-Alejandro (1985); Kaminsky and Reinhart (1999); Frenkel (1995); and Agenor and Montiel (1999, ch. 8). For individual country experiences, see Corbo (1985), on Chile; Patinkin (1993) and Bruno (1993) on Israel; and Frenkel and Fanelli (1998) on Argentina. The IMF itself had access to a series of interim reports and staff papers

documenting such possible effects on the financial market. See, for example, Kaminsky, Lizondo, and Reinhart (1998).

(13.) There were, without doubt, additional complications. The number of banks transferred to the Savings Deposit Insurance Fund kept increasing throughout 2000. Most of their owners faced criminal charges and were arrested. The shock and apprehension of the financial community was aggravated when the newly established Board of Banking Supervision and Regulation called on the banks to reduce the open positions between their foreign exchange liabilities and assets to the pre-set limits by the end of the year. This resulted in additional foreign exchange demand.

(14.) The weighted average of interest rates on 2000 auctions, that is, 36 percent deflated by 20 percent (i.e., the change in the nominal exchange rate).

(15.) $8.1 billion in IMF credits between November 2000 and June 2001 financed part of the reserve depletion of $15.2 billion.

(16.) Elements of this vicious cycle are further studied in Kaminsky and Reinhart (1999); Adelman and Yeldan (2000); Diaz-Alejandro (1985); and are more recently referred to as the Neftci-Frenkel cycle in Frenkel 1998.

(17.) This interpretation is shared by many researchers. Unrecorded current account operations, for example smuggling as well as foreign exchange movements in and out of the formal sector, without any cross-border transactions taking place are also reflected in the EO item. The latter interpretation appears to be more valid for Africa.

(18.) The sixteen countries covered are Argentina, Brazil, Chile, Colombia, Egypt, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, South Africa, South Korea, Thailand, and Turkey.

(19.) UNCTAD (1999), 110–11.

(20.) The differential between the rate at which reserves are borrowed and the return on the international assets at which they are invested represents the net loss on reserve accumulation. This resembles the case of a head of household in a developing country who borrows from the bank and then

puts the borrowed money in a deposit account at the same bank. These two transactions that generate a net loss to the household may appear totally absurd and irrational; but in fact, have a logic of their own if the deposit account is used to "gain respectability" from the consular office of, say, Australia, to which he has applied for a visa.

(21.) UNCTAD (1999), 108.

(22.) The only non-hot capital movement that was affected by the 1989 liberalization was, probably, the FDI abroad of residents.

(23.) Note that period coverage for recent hot money movements in tables 14.7 and 14.7b are different: the former (row 9) covers the first three quarters of 2001, whereas the latter incorporates the last two months of 2000 additionally.

(24.) See, for example, Boratav, Yeldan, and Köse (2000); Onaran (2000); Yeldan and Köse (1999); Filiztekin (1999); Ercan (1999); Pamukçu and de Boer (1999); Köse and Yeldan (1998); Yentürk (1997, 1999); Uygur (1996); Kepenek (1996); Şenses (1996); Bulutay (1995); and Maraşlioğlu and Tiktik (1991).

(25.) See, for instance, Metin, Voyvoda, and Yeldan (2001a); Güneş (1996); Kaytaz, Altin, and Güneş (1993); Katircioğlu (1990); and Şahinkaya (1993) for the evaluation of market concentration and patterns of oligopolistic markup pricing in the industrial commodity markets. Güneş, Köse, and Yeldan (1996), in turn, document comprehensive panel data on the degree of concentration in Turkish manufacturing using the standard Input-Output classification for the period 1985–1993.

(26.) This is the threshold used by Boratav, Yeldan, and Köse (2000) and Yeldan and Köse (1999), where, on a further level of finesse, the sectors that had CR4 ratios between 30 and 49 percent are classified as "monopolistically competitive," and sectors with CR4 ratios exceeding 50 percent are regarded as "oligopolistic."

(27.) All income data are inclusive of taxes and are in gross terms.

(28.) See Boratav for a narrative support of this claim.

(29.) See UNCTAD 1999, table 5.2. Consolidated African data for 1980–1998 generate the same signs except for the EO item, which tends to be positive (UNCTAD 2000, table 3).